AMERICAN

JUNE • 1954

Cinematographer

THE MAGAZINE OF MOTION PICTURE PHOTOGRAPHY

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- Hollywood's Greatest Underwater Venture
- Analyzing Documentary Technique
- Lighting Productions for the Business Screen

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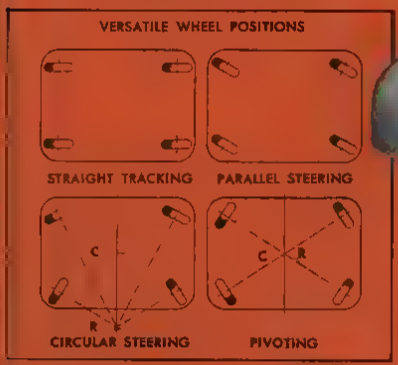

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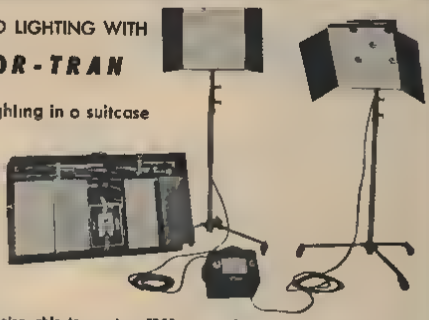

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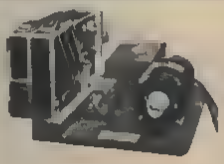

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PUBLICATION OF THE AMERICAN SOCIETY OF CINEMATOGRAPHERS

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CONTENTS

ARTICLES

HOLLYWOOD'S GREATEST UNDERWATER VENTURE—*By Till Gabbani* 282
LIGHTING PRODUCTIONS FOR THE BUSINESS SCREEN—*By Frederick Foster* 284
LIGHT PLAYS A PART IN SET DESIGN—*By William Bancroft Mellor* 286
THE PRE EDITING STAGE—*By Charles Loring* 288
THE CINERAMA TECHNIQUE—*By Joseph Brun, A.S.C.* 290

AMATEUR CINEMATOGRAPHY

ANALYZING DOCUMENTARY TECHNIQUE—*By Charles L. Anderson* 292
COMMON SENSE IN CUTTING-IN TITLES—*By John Forbes* 294

FEATURES

HOLLYWOOD BULLETIN BOARD 270
INDUSTRY NEWS 272
WHAT'S NEW IN EQUIPMENT, ACCESSORIES, SERVICE 274
CURRENT ASSIGNMENTS OF A.S.C. MEMBERS 306

ON THE COVER

SPEED MERCHANTS—The cameraman had to look to his safety in this perilous position as the sports cars rocketed past him for scenes in Universal-International's Technicolor production of "Johnny Dark," starring Tony Curtis, Piper Laurie, and Don Taylor, and photographed by Carl Guthrie, A.S.C.—*Photo by Don Christie.*

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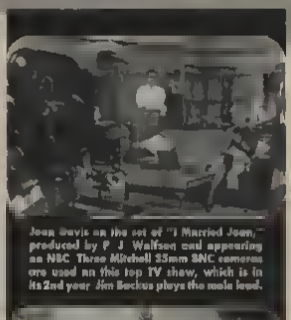
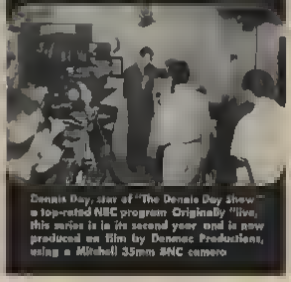
On the set of "I Love Lucy," starring Lucille Ball and Desi Arnaz. The nation's Number 1 TV show for 1951 1952 and 1953 is a pioneer of the technique of filming its program as a live show with audience Desilu Productions uses three Mitchell 35mm BNC cameras in filming "I Love Lucy"



Joan Davis on the set of "I Married Joan," produced by P. J. Wolfson and appearing on NBC. Three Mitchell 35mm BNC cameras are used on this top TV show, which is in its 2nd year. Jim Backus plays the male lead.



Dennis Day, star of "The Dennis Day Show" a top-rated NBC program. Originally "live," this series is in its second year and is now produced on film by Denmac Productions, using a Mitchell 35mm BNC camera

TO FILM A SUCCESSFUL SHOW...

It takes more than just a good script to insure the success of a top-rated network program. The on-stage performances of the stars and supporting cast must be outstanding, carefully timed, superbly directed. And the camera must perform flawlessly in its vital role of recreating the superior quality of the show for millions of TV viewers.

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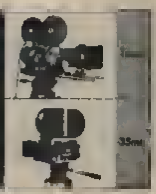

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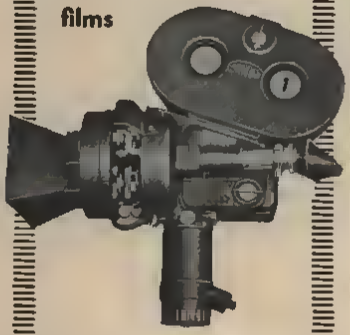

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Hollywood Bulletin Board

A TRACKING SHOT routine which director of photography Irving Glassberg, ASC, engineered for shooting a scene for Universal-International's "Francis Joins the WACs."

MAURY GEETSMAN, ASC, and his camera crew take to a raft to film scenes for "Tanganyika" on lake on the Universal-International studio backlot. Setting represents British East Africa.

James Wong Howe, ASC, last month was elected an Honorary Member of Delta Kappa Alpha, National Motion Picture Honorary Fraternity at University of Southern California. Howe is second Hollywood cinematographer to be so honored. Previously, Arthur Miller, ASC, had been voted an Honorary membership in the fraternity

•

Ted McCord, ASC, following an absence of several months from Warner Brothers Studio where he photographed some of that studio's top productions in recent years, has been signed to a new three-year contract by Jack Warner. His first assignment is "East of Eden." begun May 27th and being filmed in CinemaScope and WarnerColor

•

Irving Browning, head of The Camera Mart, Inc., New York City, and founder and first President of the Society of Cinema Collectors and Historians, outlined the aims of the Society in a talk before members of the S.M.P.T.E. at the latter's convention in Washington, D.C. last month

•

William Germon, President of W. J German, Inc. E-K film distributors, and who also is an Associate Member of the American Society of Cinematographers, last month was presented with the New York Variety Club's first Heart Award in recognition of his work as President of the Variety Club's Foundation to Combat Epilepsy.

Highlight of the evening was a dramatized sketch on the order of "This Is Your Life" covering the illustrious career of German from the time he entered the employ of Eastman Kodak Co. in Rochester in 1906 to his present status as head of the company which bears his name.

•

Ralph Staub, ASC, who left Columbia Pictures sometime ago to collaborate with comedian Ken Murray on a new TV film series, has returned to Columbia where he will resume production of the studio's famed "Screen Snapshots" short subjects.

•

"Elephant Walk," recent Paramount Pictures' Technicolor release, carries credits of six A.S.C. cameramen. In addition to the name of Loyal Griggs, who was Director of Photography on the production, John P. Fulton, Paul Lerpae, Farciot Edouart, Wallace Kelley and Irmin Roberts contributed process and special effects photography to the production.

•

Edward Cronjager, ASC, flew to Paris early last month to photograph special footage for "Desiree" and "A Man Called Peter" 20th Century-Fox CinemaScope productions. Assignment will keep him overseas about six weeks.

•

Tom Tutwiler, ASC, who directed 2nd Unit photography on Paramount's "Strategic Air Command," completed the assignment early last month. Raves by studio execs for his exceptional aerial photography greeted him on his return. William Daniels, ASC, directed photography on the first unit at the studio

•

Bob Burks, ASC, is in France where he will photograph Alfred Hitchcock's new production for Paramount release, "Catch A Thief."

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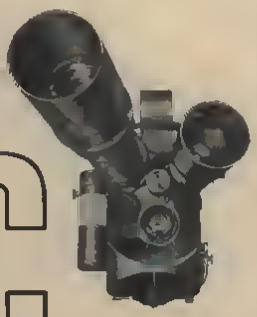

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INDUSTRY NEWS

Using the Cunningham camera to shoot a fight scene

WHEN THE GOVERNMENT removed restrictions recently on sale of the famed Cunningham 35mm hand-held motion picture camera, it made available to motion picture studios and others one of the most valuable of cameras for special photographic work.

One of the camera's more interesting uses is pictured above. It shows a Hollywood camera man, reclining on a baggage truck being wheeled by a grip, shooting action closeups of a couple of prizefighters. Because of the camera's extraordinary rugged construction, it is ideal for location work and general studio use wherever a hand-held camera is required.

Designed and produced for the O S S at an original cost said to exceed $7,000 each, it is reported the only hand-held 35mm camera produced in the U S. having dual pilot pin registration.

All controls can be set and adjusted by an operator wearing gloves, if necessary, making it ideal for use in extreme cold climes. Turret rotation, diaphragm settings, focusing, speed changes and the on-off switch may be controlled without removing hands from the pistol-grip handles.

The camera features a 4-lens, self-positioning ball-bearing turret with 3 integral lenses. Standard lens equipment includes a 35mm Baltar, a 75mm Baltar and a 6-inch telephoto. An eye-level finder is provided with field marks for the three integral lenses.

Camera is driven by a high-speed universal electric motor, which is governor-controlled for operation at 16, 24 or 32 fps. Rotary shutter is 170°, counterweighted and dynamically balanced.

Film magazine holds 200-ft. loads and contains the complete film movement including the dual register pins.

Gordon Enterprises, 5362 No. Cahuenga Blvd., North Hollywood, Calif., is exclusive distributor of the Cunningham camera, which is priced under $900.

TELEFILM STUDIOS in Hollywood have announced the development of a radically new process in the duplicating of 16mm color film. Process, copyrighted as "Life-Like Color," features an electronically-operated color printer that automatically corrects for over and under-exposure in the original shooting of a film.

This new process also insures uniformity of all duplicate prints and accurate blending and balancing of delicate tones. The usual reddish tones and fuzziness of detail on all objects, ranging from closeup to infinity, are absent in the finished product.

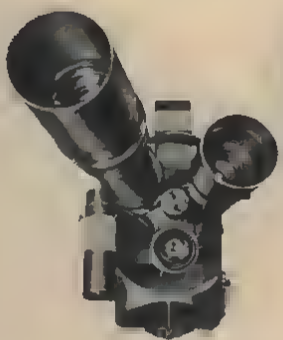
"Life-Like Color," through the facilities of Telefilm's laboratories, is now

(Continued on Page 310)

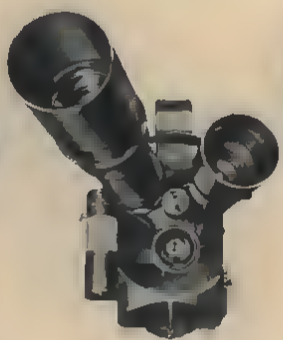
35 and 16/35 mm

reflex viewing

divergent turret



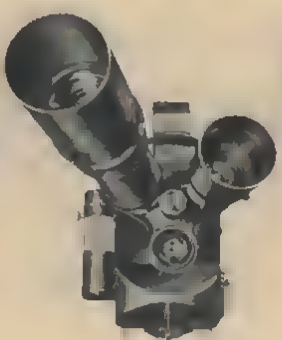
40° to 200° adjustable shutter



lightweight—14 lbs.

100' to 400' magazine

instantaneous loading



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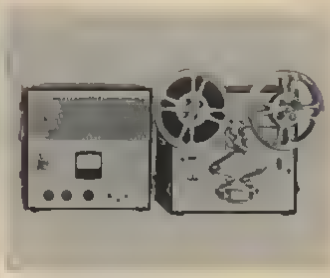

Magnetic Recorders—Hallen Corporation, 3503 W. Olive, Burbank, Calif., announces the addition of two new improved models to its line of professional magnetic film recorders. Model 225 features two sound drums having adequate space between for installation of multiple track, stereophonic or CinemaScope heads.

Model 235 employs a single drum and single track recording system. Otherwise both models are identical and both are available for use with either 35mm, 17½mm or 16mm recording film with standard track placement. Both models come in two units, one containing the electronic section, the other the mechanism. A salient pole synchronous motor, equipped with nylon gears, powers the sprocket. In-sync operation is positive, reverse as well as forward. Other features include smooth and flutter-free film motion, clutch operated take-up, and rewind motors which give fast forward and rewind speed of 1000 ft. per minute, 1200 ft. film capacity, push-button relay operated motor controls, and built in footage indicator driven from sprocket shaft.

The electronic section consists of record and playback amplifiers, metering and monitor circuits and input and output connections, and one high-level and two low impedance microphone channels, which can be used simultaneously with abundant gain for use with high quality, low output microphones. Full technical data and price may be had by writing the manufacturer and mentioning *American Cinematographer*.

New Optical Effects System—Consolidated Film Industries, 959 Seward St., Hollywood 38, Calif., announces a new optical effects system particularly adapted to TV production. This new method prints 35mm Eastman color positive from Eastman color negative without the use of duplicate negatives. The optical effects thus obtained have the same quality as the running footage and there is no extra charge for lap dissolves or fades. The process is in operation and available to customers.

The Rotator Lens is a new and interesting accessory to the well-known Camart Optical FX Unit. With the Rotator Lens attached to the FX Unit it is possible to make such trick effects photographically within the camera as a room revolving, or turned upside down or on its side to photograph people walking on the ceiling, etc. Rotation is possible both clockwise and counter-clockwise.

Still another unusual effect that can be achieved very easily is the creation of the impression subject is getting dizzy

or blacks-out—accomplished simply by revolving the Rotator Lens slowly and gradually increasing rotation speed until scene is whirling rapidly.

By turning the handle back and forth instead of in a full circle a rocking motion is obtained in the scene to give the comedy effect, for instance, of a person seasick.

The Rotator Lens may be used with either 35mm or 16mm cameras, and is just as readily adaptable to television cameras for live action effects.

Present owners of Optical FX Units may attach the Rotator Lens without need for alteration to the FX Unit.

Distributing the Rotator Lens and the Camart FX Unit is Camera Mart, Inc., 1845 Broadway, New York 22, N.Y.

Magnesound Attachment — Victor Animatograph Corp., Davenport, Iowa, announces its new Mixer Magnesound attachment that enables users of either the new 1954 Victor sound projector or any of the company's older model pro-

(Continued on Page 278)

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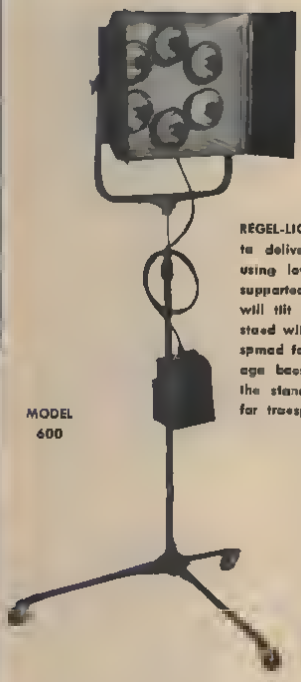

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REGEL-LIGHTS are specifically designed to deliver correct color temperature using low cost bulbs The head is supported by a strong cast yoke that will tilt and lock at any angle The stand with an 8' rise has a wide leg spread for balance The compact voltage booster is mounted directly on the stand Entire unit folds readily for transportation to location.

MODEL 600 (illustrated) the bulb unit equivalent to more than 5000 watts, produces 750 foot candles at 12 feet and draws only 12 amps. Complete with head, barndoors, stand, converter $110.00

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MITCHELL Standard 35mm camera 40mm 50mm, 75mm Astro Pan Techar f2.3 lenses two 1000' magazines, variable speed motor sunshade and matte box, viewfinder standard friction head tripod with baby, all cases exceptionally fine condition $4,900.00

B&H Filmo 70D, turret, 15mm, 25mm, 50mm lenses, excellent $145.00

B&H FILMO 70DA Turret, 50mm lens auto-parallax finder case 295.00

Cine-Special I, black, 15mm, 25mm lenses excellent 395.00

AURICON Cine-Voice, turret, amplifier, mike, cables, batteries carrying case demonstrator, like new 625.00

AURICON RT 70 recorder w/amplifier, mike cables 295.00

PRESTO model I dick playback w/speaker, excellent 39.95

PAN CINOR Zoom lens, like new 295.00

B&H DIPLOMAT 16mm projector w/case excellent 115.00

B&H Friction head tripod for Eyemo or Filmo 69.50

Eastman Kodak tripod for Cine-Special, like new 35.00

Arriflex deluxe bowl type tripod w/boots, demonstrator 225.00

Pee Jr three wheel collapsible bicycle cart dolly w/case 195.00

OUR NEW MACHINE SHOP is completely equipped with the latest and best tools and machinery Complete stock of spare parts for repair and overhaul of Movieolas, Mitchells Arriflex Cine-Special, and Maurer cameras We are an authorized Bell and Howell Repair and Service Station. We have an optical bench installed for complete lens testing and calibrating service

CAMART TV MIKE BOOM

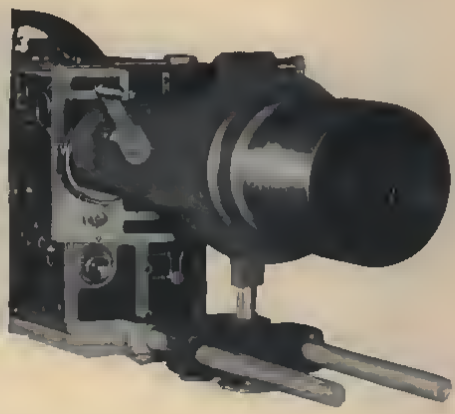
FOR STUDIO OR LOCATION

Lightweight and practical mike boom for sound production or television studio use. 13' boom arm with counter balance weight and steel stress wire support.

Rear rotating handle for directional mike control. Rugged hinged center joint and lock for folding boom, complete with pan and tilt locks.

Sturdy stand supports will rise to 8 feet. Ball-bearing rubber tired wheels for smooth silent movement. Total weight 75 pounds. May be disassembled to fit in your car. Boom arm folds to 6½ feet, stand folds to 4 feet, entire operation requires only a very few minutes for breakdown or set-up on location. Price: $297.50.

EXCITING NEW EFFECT!
THE ROTATOR LENS



For 16mm - 35mm - TV Cameras

Now you can make your subjects walk on walls and ceilings, create that rocking-the-boat effect, or completely revolve a room 360 degrees in clockwise or counter-clockwise rotation with this new addition to the Camart Optical FX Unit.

Present owners of the Camart Optical FX unit need only the ROTATOR lens in special mount, price $150.00

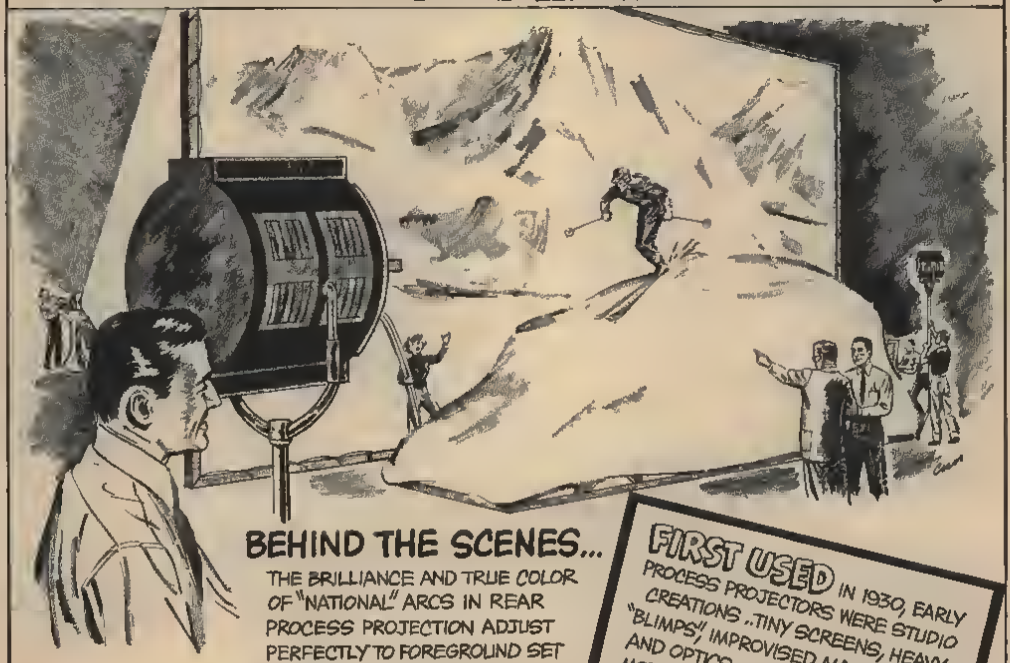
Revolving housing assembly	75.00
Base for most 16mm cameras	12.50
Adapter for Mitchell 35mm camera	18.50
Camart Optical FX unit motorized, additional	125.00

Adapters for TV Cameras, prices on request

THE CAMERA • MART INC.

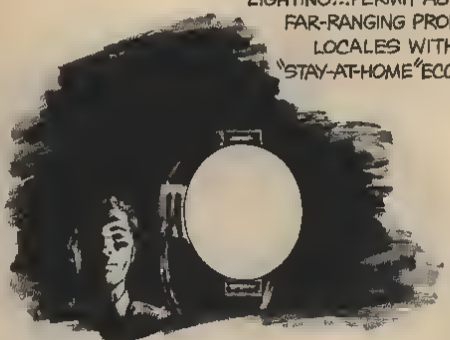
MOTION PICTURE AND TV PRODUCTION EQUIPMENT

SEEING IS BELIEVING!

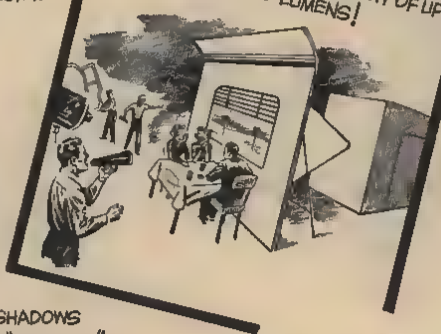


BEHIND THE SCENES...

THE BRILLIANCE AND TRUE COLOR OF "NATIONAL" ARCS IN REAR PROCESS PROJECTION ADJUST PERFECTLY TO FOREGROUND SET LIGHTING...PERMIT AUTHENTIC, FAR-RANGING PRODUCTION LOCALES WITH "STAY-AT-HOME" ECONOMY.



FIRST USED IN 1930, EARLY PROCESS PROJECTORS WERE STUDIO CREATIONS..TINY SCREENS, HEAVY "BLIMPS", IMPROVISED MACHINERY AND OPTICS. CURRENT TRIPLE-HEAD MODELS OPERATE WITH SCREENS OVER 20 FEET WIDE AND TOTAL LIGHT OF UP TO 85,000 LUMENS!



TODAY... FOR PROCESS PROJECTION, BROAD SET COVERAGE, DEEP PENETRATION, CRISP SHADOWS AND HIGH BRILLIANCE WITH LEAST HEAT, IMPROVED "NATIONAL" CARBONS CONTINUE TO LEAD ALL OTHER TYPES OF STUDIO LIGHTING.

THE "NATIONAL" CARBON ARC...NOTHING BRIGHTER UNDER THE SUN

The term "National" is a registered trade mark of Union Carbide and Carbon Corporation

NATIONAL CARBON COMPANY

A Division of Union Carbide and Carbon Corporation, *30 East 42nd Street, New York 17, New York*

District Sales Offices Atlanta Chicago Dallas Kansas City New York, Pittsburgh, San Francisco

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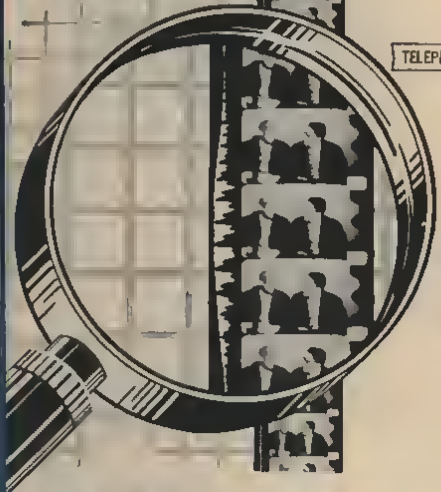
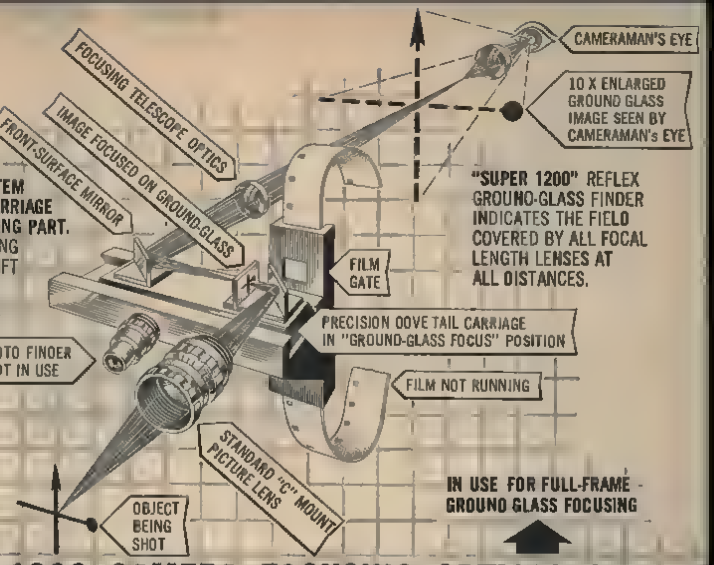
NEW

Modulite Model "S" 16mm variable area sound-on-film recording Galvanometer with "Shutter" Noise Reduction, now available as optional equipment on the Auricon "Super 1200" and the "Auricon-Pro" Cameras, and the Auricon RT-80 Double-System Recorder.

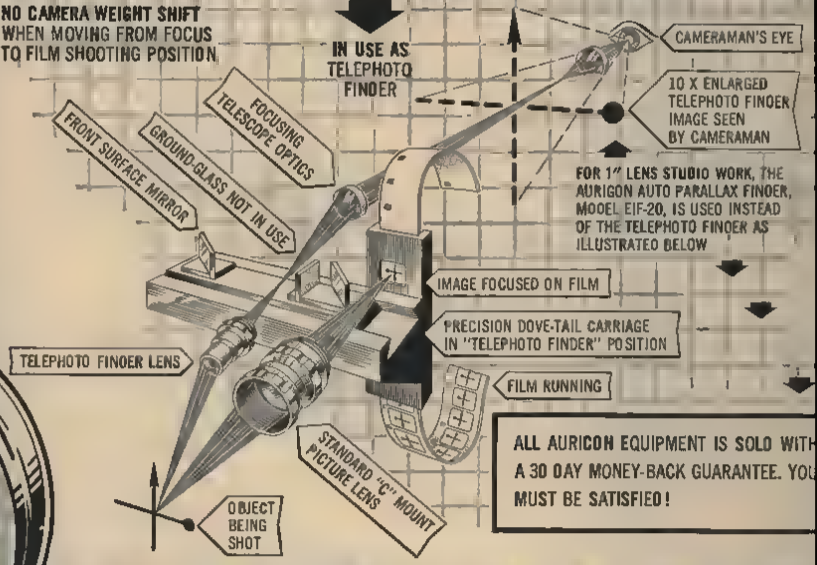
- ★ High-fidelity sound-track with 16 DB noise reduction.
- ★ Sound track always runs centered on projector photo-cell scanning beam, for crisp and clear sound track reproduction
- ★ Only one audio-modulated sound-track edge, eliminates Gamma (contrast) effects and minimizes "Eberhard Effect" and "Mackie Line" troubles experienced with multiple-track variable-area recording.
- ★ Audio galvanometer and shutter-noise-reduction galvanometer are independent, preventing noise-reduction-bias cross talk distortion on sound track.
- ★ Rugged Can be overloaded without danger
- ★ Tested and now being used by leading Studios and Television Stations




CAMERAMAN'S EYE
10 X ENLARGED GROUND GLASS IMAGE SEEN BY CAMERAMAN's EYE
FOCUSING TELESCOPE OPTICS
IMAGE FOCUSED ON GROUND-GLASS
FRONT-SURFACE MIRROR
OPTICAL SYSTEM DOVE-TAIL CARRIAGE IS ONLY MOVING PART. CAMERA CASING DOES NOT SHIFT TO FOCUS OR SHOOT!
"SUPER 1200" REFLEX GROUND-GLASS FINDER INDICATES THE FIELD COVERED BY ALL FOCAL LENGTH LENSES AT ALL DISTANCES.
FILM GATE
PRECISION DOVE TAIL CARRIAGE IN "GROUND-GLASS FOCUS" POSITION
TELEPHOTO FINDER LENS NOT IN USE
FILM NOT RUNNING
STANDARD "C" MOUNT PICTURE LENS
OBJECT BEING SHOT
IN USE FOR FULL-FRAME - GROUND GLASS FOCUSING

SUPER 1200 CAMERA FOCUSING-OPTICAL-SYSTEM

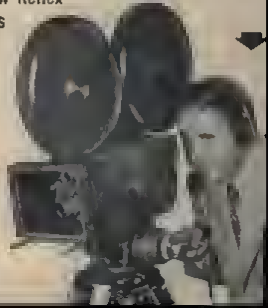
Precision-Built for Guaranteed Accuracy to .0001 part of an inch


NO CAMERA WEIGHT SHIFT WHEN MOVING FROM FOCUS TO FILM SHOOTING POSITION
IN USE AS TELEPHOTO FINDER
CAMERAMAN'S EYE
10 X ENLARGED TELEPHOTO FINDER IMAGE SEEN BY CAMERAMAN
FOCUSING TELESCOPE OPTICS
GROUND-GLASS NOT IN USE
FRONT SURFACE MIRROR
FOR 1" LENS STUDIO WORK, THE AURIGON AUTO PARALLAX FINDER, MODEL EIF-20, IS USED INSTEAD OF THE TELEPHOTO FINDER AS ILLUSTRATED BELOW
IMAGE FOCUSED ON FILM
PRECISION DOVE-TAIL CARRIAGE IN "TELEPHOTO FINDER" POSITION
TELEPHOTO FINDER LENS
FILM RUNNING
STANDARD "C" MOUNT PICTURE LENS
OBJECT BEING SHOT

ALL AURICON EQUIPMENT IS SOLD WITH A 30 DAY MONEY-BACK GUARANTEE. YOU MUST BE SATISFIED!

THE CAMERA OF TOMORROW, HERE TODAY. ITS ONLY EQUAL IS ANOTHER AURICON SUPER 1200

Detailed here are two of the remarkable technical developments built into the new Auricon "Super 1200" Sound-On-Film Recording Camera. The unique Modulite Variable-Area Sound-Track with "Shutter" Noise-Reduction, described at left, and the new Reflex Telephoto-Finder and Focusing Optical-System shown above, plus "Self-Blimping" for studio work, 33 minutes continuous film capacity, Variable Shutter, and other professional features, have prompted Producers and Cameramen to name the Super 1200.. **"Finest 16 mm Sound Camera ever built!"**



Priced complete for Optical Sound-On-Film Recording, at $4,315 65 (Lenses additional). Also available without sound. Write for complete Auricon Catalog, free.

AURICON

BERNDT-BACH, INC.

6902 ROMAINE ST., HOLLYWOOD 38, CALIF.

Auricon Hollywood

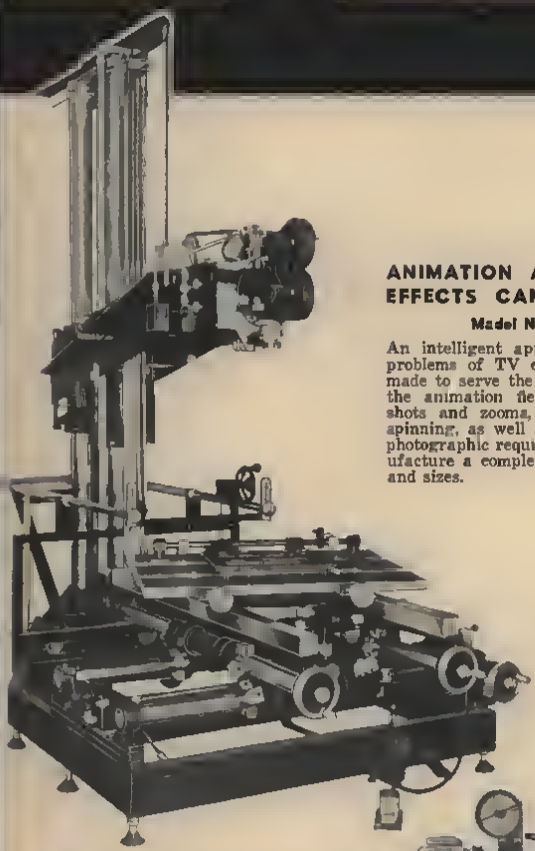
Distributed by Graflex

ANIMATION EQUIPMENT
SPECIAL EFFECTS OPTICAL PRINTERS

- ANIMATION
- TITLES
- STILLS
- CARTOONS
- TRICK PHOTOGRAPHY

For

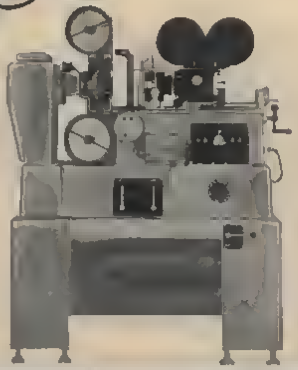
- INDUSTRIAL MOTION PICTURES
- EDUCATIONAL MOTION PICTURES
- TV MOTION PICTURES
- ENTERTAINMENT MOTION PICTURES



ANIMATION AND SPECIAL EFFECTS CAMERA STAND

Model No. 111-E

An intelligent approach to today's problems of TV commercials. It is made to serve the multiple tasks of the animation field to take angla shots and zooms, matching zooms, spinning, as well as countless othar photographic requirements. We manufacture a complete range of styles and sizes.



OPTICAL PRINTER FOR SPECIAL EFFECTS WORK

Prints from one picture to anothar or one size picture to another. Zoom can be addad to tha picture without an exposure crew. Foreign titles can be added to bottom of any picture. The machine has a ball bearing mounted zoom for 4 to 1 blow-up or reduction.

WRITE FOR COMPLETE LITERATURE

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J. G. SALTZMAN, INC.

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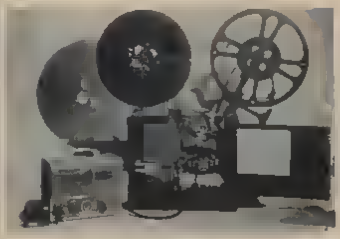
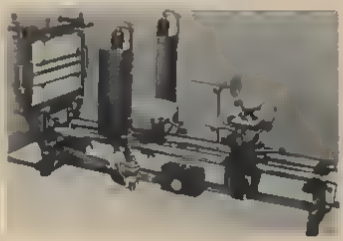
WHAT'S NEW

(Continued from Page 218)



jectors to add sound to either silent or optical sound films. Mixer Magnesound records voice and music simultaneously, plays back immediately, erases and records in one simple operation. Individual inputs for microphone and phonograph have separate controls for coordinating mixing versatility. Price, complete with amplifier, microphone, sound head and carrying case is $199.45

Cam-Stock — Medina Industries, Medina, Texas, announces a gun stock type movie camera mount to accommodate any 8mm, 16mm or lightweight 35mm professional type camera. It is adapted for shooting movies of wildlife, hunting, sports action, and shots of children at play and is particularly



suited to use with a telephoto lens. Made from one piece of redwood it contains a hollow compartment in the shoulderpiece large enough to carry a number of movie making accessories. Cam-Stock is available only from the manufacturer. Price postpaid is $9.95.

Foreign Stock Shots—Stock Shots To Order, Inc., 550 5th Ave., New York 36, N. Y., recently organized by R. A. Pheelan, formerly producer-writer with Official Films, announces a special service of supplying European and Asiatic stock shots for TV producers. A crew has recently been sent abroad and will tour for 18 months filming authentic foreign

(Continued on Page 280)

Great equipment makes great cameramen . . . . .

BALANCED TRIPOD HEAD

and

PROFESSIONAL JUNIOR TRIPOD

are the standbys of the masters

You'll never hear Fritz Kreisler playing on a scratchy fiddle . . . or Louis Armstrong on a $7 trumpet. Good craftsmen need good tools.

Camera Equipment Company makes, sells, services and rents the world's finest quality TV and Motion Picture Equipment.

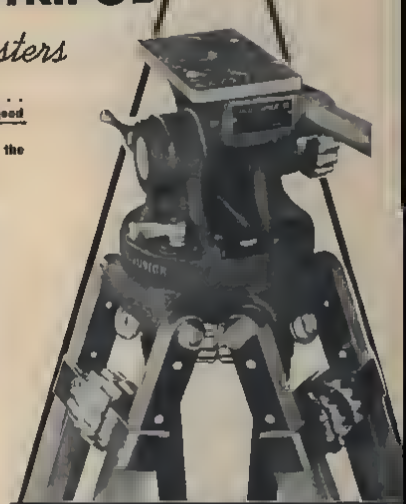
New "BALANCED" TV head — MODEL "C" —for the world's smoothest pan and tilt action.

No more groping for center of gravity. The new Model C "Balanced" Tripod Head is equipped with a convenient, accessible positioning handle mounted below the top plate, which allows the operator to reposition the camera to the correct center of gravity. No matter what focal length lens is used on the camera turret, the camera can be balanced on the Model C Head without loosening the camera tie-down screw.

It has all the features which have made the "Balanced" head a gem of engineering ingenuity—quick release pan handle, tilt-tension adjustment to suit your preference. It's a Cameraman's dream!

SYNCHRONOUS MOTOR DRIVE — 110 Volt AC — Single phase, 60 Cycle. Runs in perfect synchronization with either 16mm or 35mm Sound Recorders. Mounting platform permits removal of magazine while camera remains mounted on motor. Spring steel drive tie coupling prevents damage if film jam occurs.

Knurled knob on armature permits rotating for threading. "On-Off" switch in base. Platform base threaded for ¼" or ⅜" tripod tie-down screw. Rubber covered power cable with plugs included.



More professional cameramen use The PROFESSIONAL JUNIOR Tripod than any other tripod in the world.

Let's face it. You need a first class tripod to make better pictures. PROFESSIONAL JUNIOR has the rigidity, the range, and the ease of operation that better pictures demand. See it—try this tripod beauty—and you'll never be without it.

PROFESSIONAL JUNIOR TRIPOD—Friction Type. Handles all 16mm cameras, with or without motor. Also 35mm Newsreel & B & H Eyemo with and without motor, and 400' magazines. Tripod base interchangeable with Professional Junior gear drive head. "Baby" tripod base and "Hi-Hat" base available.

FRANK C. ZUCKER

CAMERA EQUIPMENT CO.

1600 BROADWAY NEW YORK CITY

SALES • SERVICE • RENTALS — CAMERAS • MOVIOLAS • DOLLIES

Complete line of 35mm and 16mm equipment available for rental.

MITCHELL- Standard, Hi-Speed, BNC, NC, 16mm

BELL & HOWELL. Standard, Shiftover, Eyemo

ARRIFLEX. 35mm and 16mm

MAURER 16mm Cameras

MOVIOLA- Editing machines, Synchronizers

We design and manufacture Lens Mounts and camera equipment for 16mm—35mm and TV cameras.

VARIABLE SPEED MOTOR — 110 Volt AC/DC with Tachometer for B Cine Special Motor drive your Cine Special with confidencal Tachometer is mounted in clear view of operator. Calibrated from 8 to 64 frames per second. Definite RED marking for 24 fps. Electrical governor adjusts speeds. Steady operation at all speeds. No adapters needed. Motor coupling attaches to camera and couples to motor. Spring steel drive arm shears if film jam occurs. Easily replaced.

We calibrate lenses—Precision "T" Stop Calibration of all type lenses, any focal length. Our method is approved by Motion Picture Industry and Standard Committee of SMPTE. For proper exposure density, it is important that you have your lens "T" stop calibrated. Lenses coated for photography. Special TV coating. Rapid service.

Precision Prints

YOUR PRODUCTIONS BEST REPRESENTATIVE

CLOSE CHECK ON PROCESSING

Picture and sound results are held to the closest limits by automatic temperature regulation, spray development, electronically filtered and humidity controlled air in the drying cabinets, circulating filtered baths, Thymetrol motor drive, film waxing and others. The exacting requirements of sound track development are met in PRECISION'S special developing machinery.

YOUR ASSURANCE OF BETTER 16mm PRINTS

16 Years Research and Specialization in every phase of 16mm processing, visual and aural. So organized and equipped that all Precision jobs are of the highest quality.

Individual Attention is given each film, each reel, each scene, each frame — through every phase of the complex business of processing — assuring you of the very best results.

Our Advanced Methods and our constant checking and adoption of up-to-the-minute techniques, plus new engineering principles and special machinery enable us to offer service unequalled anywhere!

Newest Facilities in the 16mm field are available to customers of Precision, including the most modern applications of electronics, chemistry, physics, optics, sensitometry and densitometry — including exclusive **Maurer-designed equipment** — your guarantee that only the *best* is yours at Precision!

Precision Film Laboratories — a division of J. A. Maurer, Inc., has 16 years of specialization in the 16mm field, consistently meets the latest demands for higher quality and speed.

PRECISION
FILM LABORATORIES, INC.
21 West 46th St.,
New York 36, N.Y.
JU 2-3970

WHAT'S NEW

(Continued from Page 278)

scenes in 16mm and 35mm, color and black-and-white. Footage taken aboard the ocean liner and flown back has already been utilized in TV film production for background projection plates, with dancers and singers performing in front of the rear projection screen.

Telephoto Lens — Camera Specialty Co. Inc., 705 Bronx River Rd., Bronxville 8, N. Y., announces it has been appointed exclusive representative in the U.S. for the new Berthiot 3" f3.5 telephoto lens for all 16mm cameras taking "C" mount lenses. This new lens has a focusing mount, with a range of 3½ ft. to infinity, diaphragm stops from f3.5 to f22, is coated and finished in chrome. Some notable characteristics are high definition, edge-to-edge sharpness and good color rendition. The Berthiot is available for immediate delivery and retails at $43.50.

8MM and 16MM Film Printer — Uhler Cine Machine Company, 15778 Wyoming Avenue, Detroit 38, Michigan, offers a reduction and enlarging printer for 8mm and 16mm films having three special features: it reduces 16mm to 8mm, enlarges 8 mm to 16mm, and it is equipped to print color film as well as black and white.

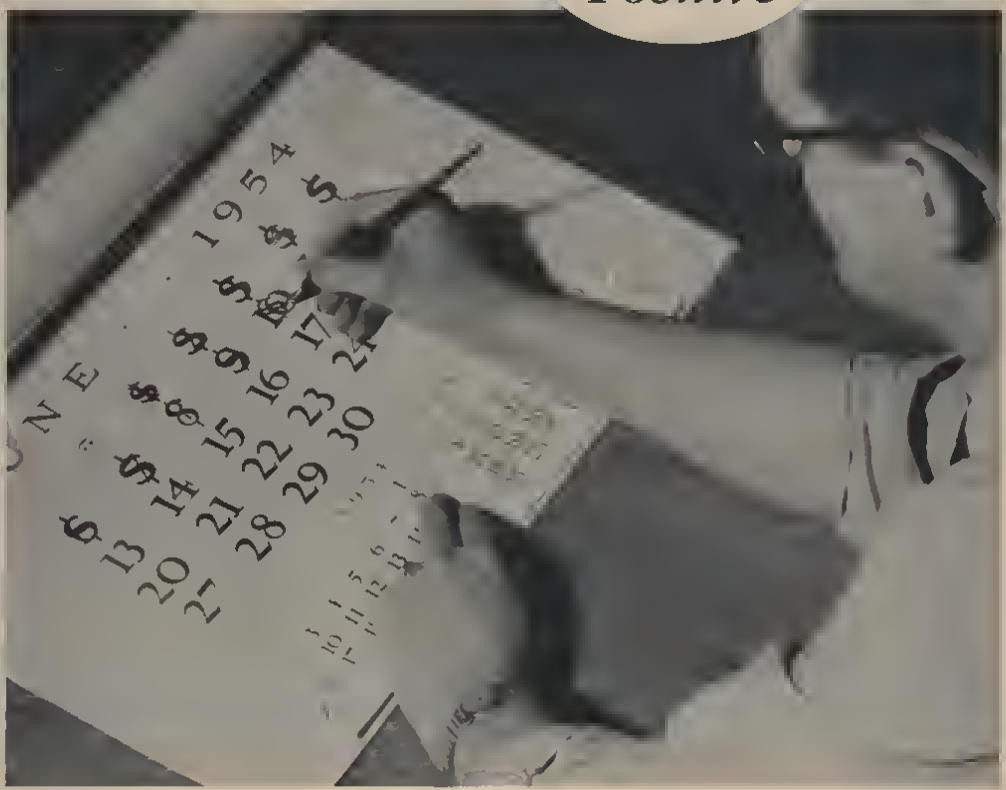
In printing, the film is exposed by a 150 watt lamp on either side of the printer, and there are blowers for cooling. The light range can also be lowered by using a filter and a filter holder.

The printer operates at 25 feet per minute printing speed. The lens is an anastigmat f/3.5. The aperture plate is of a highly polished stainless steel. The printer is equipped with semi-automatic dual light control. One is set in advance the equivalent of one full scene and the light changes automatically as the notched film goes by.

Also announced by the company is its combination continuous printer for 8mm and 16mm film, black and white or color, single or double system sound. The film is run through the machine once only while printing single or double sound system, at the same time the picture is printing. Capacity is 1200 ft. negative, positive, and sound track. The printing speed is up to 1600 ft. per hour. The equipment is ideal for professional or amateur movie makers, laboratories, schools, and technicians. For complete technical information and prices, write the manufacturer, mentioning *American Cinematographer* Magazine.

When Time is Money,

You Save With Ansco *Negative Positive* Color



Think how you'd save on production costs if you could eliminate drawn-out waiting to see color rushes. Well, Ansco Negative-Positive Color can do just that for you. It allows you to see the results of your shooting within hours, often the same day. Thus the prolonged holding of costly casts and sets is eliminated.

YOU MAKE IMPORTANT SAVINGS IN PRODUCTION, TOO

No special camera required

Any competent cinematographer can get excellent results with Ansco Negative-Positive Color using standard 35mm black-and-white cameras.

No special processing equipment needed

Minor modifications of standard black-and-white equipment gives superior processing.

YOU GET ALL THIS PLUS TOP-NOTCH SCREEN QUALITY!

Color rendition with Ansco Negative-Positive Color is *truer*. Screen steadiness is excellent. Superior definition. Greater brilliance and depth. Finer grain. Higher emulsion speed. Greater latitude. Increased production flexibility.

Shoot your next production on Ansco Negative-Positive Color. It will mean *much* lower production costs and an enhanced reputation as maker of fine pictures.

Ansco

Binghamton, New York
A Division of General Aniline & Film Corporation
"From Research to Reality"

1 As when filming on land, a camera parallel is moved into position 30 ft underwater for a new setup for "20,000 Leagues Under The Sea."

2 Two husky grips wearing Aqua-lung equipment struggle through rocky coral beds with cumbersome tripod, lowered from nearby supply ship.

3 The heavy tripod is carried to top of parallel where it is set up to take the Mitchell CinemaScope camera mounted in watertight blimp

7 Grips erect set piece which serves as background for an underwater action scene. Note one diver in regulation Navy diving gear.

8 Prior to starting camera, Till Gabbani takes light reading with meter, which is encased in protective plastic chamber attached to cord

9 Director Fleischer writes last minute instructions on underwater slate to cameraman before shooting begins on big action scene

Hollywood's Greatest Underwater Venture

Working 30 feet underwater much the some os on land, a Disney camera crew films thrilling submorine action for "20,000 Leagues Under The Sea."

By TILL GABBANI

PHOTOS BY LT COMMANDER CHARLES A HOOPER USN

THIRTY FEET UNDERWATER in the Caribbean, off Nassau, Bahamas, some eighty motion picture artists and technicians wearing safety diving gear recently completed what unquestionably was the most challenging assignment ever faced by a Hollywood motion picture troupe. Here on the ocean floor was filmed in Eastman Color with a CinemaScope lens the fabulous underwater se-

4 Cameraman Gabbani and Director Richard Fleischer (dark suit) survey scene through special CinemaScope viewfinder before camera is set up

5 Mitchell camera in pressurized case is carried to parallel by two assistants, 175 pound camera has neutral buoyancy underwater.

6 Heavy hemp mat is placed on ocean floor to reduce amount of sand kicked up by divers, thus increasing production time underwater.

10 Biggest underwater scene ever photographed for a Hollywood production the burial sequence in "20,000 Leagues Under The Sea."

11 The shooting over, cameraman Gabbani prepares to surface, carrying his exposure meter, underwater slate, and "tity" or color chart

12 Closeup of pressurized, watertight himp built by Disney engineers for Mitchell camera used in filming underwater scenes in color and C-Scope

quences for Walt Disney's version of Jules Verne's "20,000 Leagues Under The Sea."

It would require a good size volume to relate in detail everything of interest connected with this unusual undertaking. So this must be but a brief resume which, along with the photos above, I hope will give the reader a comprehensive account of this greatest of underwater filming assignments.

During this assignment there was photographed more underwater footage than for any other motion picture on record. The scenes for the most part were not the familiar undersea swimming shots of one or two people but embraced carefully-planned and enacted scenes that required painstaking rehearsals, and the use of props and set pieces laboriously brought to the ocean floor and erected by experienced divers trained as grips and prop men for this particular phase of the Disney production.

Of equal interest is the fact that there were more people working underwater at one time in the filming of these scenes than in any other previous attempt at underwater film production. In the key dramatic sequence—the burial under sea of a slain shipmate of the *Nautilus* crew—there was a total of forty-two persons working simultaneously before and behind the camera.

Because most of the undersea action consisted of lengthy routines rather than brief shots of men swimming, etc., our filming operations approximated those of the studio sound stage. We used a standard Mitchell camera for the stationary shots, heavy metal tripod, parallels, etc., and were assisted by the usual crew of camera assistants, prop men, and grips. About the only thing missing was the big studio lights. Here, illumination was supplied by sunlight.

(Continued on Page 308)

SET LIGHTING for business films involves everything from ultra-closeups to full-scale sound stage sets and demands use of just about every type of lighting unit used in major studio production

Above, left, a group of baby spots concentrate on an arc welding operation. At right, simple reflector-type photofloods mounted on a floor stand supply light for a location interior

LOCATION INTERIORS in large factories present the greatest problem for the industrial film cameraman. A wide array of lighting units are necessary to cover the vast areas and to spread sufficient

light around the usually dark-painted machinery. Simple, easy-to-light sets such as above require the least lights and special lighting effects. Note cameraman taking light reading

Lighting Productions For The Business Screen

By FREDERICK FOSTER

TODAY, THE SCIENCE of major studio set lighting is being applied successfully, yet economically, in the production of 16mm industrial and business films. While set lighting in industrial film studios may not be the ambitious project it is in Hollywood major studios, nevertheless it involves considerable planning and skill in execution.

When we speak of sets in commercial film production, we include not only those erected on the sound stage, but also location interiors, which frequently become stages where important scenes are filmed and therefore require special lighting care. The basic techniques of set lighting, which will be analyzed here, will therefore apply both to studio sets and location interiors. The major difference between the lighting technique for studio sets and location sets is that in the former, lighting can be more precisely controlled. The location set sometimes presents the advantage of offering possibilities for unusual lighting effects characteristic of the locale itself.

(Continued on Page 302)

EASTMAN

PROFESSIONAL MOTION PICTURE FILMS

W. J. GERMAN, Inc.

Fort Lee Chicago Hollywood

HIGHLY STYLIZED set for "Within Man's Power" in which the scene is suggested rather than depicted in full detail. The photography involved eighteen light changes, required seven hours of lighting rehearsals, although scene appears on screen only one minute. Room dimensions are defined by white doorway and window frame set against a black velvet drop. Meager props complete the set.

LIGHT PLAYS A PART IN SET DESIGN

"Within Man's Power" employed a series of highly-stylized sets in which major details were suggested rather than depicted.

By WILLIAM BANCROFT MELLOR

MOTION PICTURE PRODUCTION is no novelty on the banks of the Potomac. Washington, D.C., political focal point of the world, for years has been producing newsreel-type films for television — the work of a tight little colony of 16mm cameramen and film technicians. Filmed TV programs, such as those of Drew Pearson, Fulton Lewis, Jr., and Marquis Childs ("M. D.," "Today," and "Washington News reel") long have originated in the Nation's capital.

Lately, Washington film production has advanced to the 35mm field. Nicholas Webster, onetime Hollywood actor and cameraman, now a well-known producer-director with a long list of outstanding documentaries to his credit, is undertaking a series of major productions which will include both documentaries and feature films.

ANOTHER scene in which action is played on simple set against black backdrop. Here the pattern of lighting used is clearly shown.

His first film, "Within Man's Power," is at this writing in production on the sound stage of the Capital Film Studio, a converted motion picture theatre operated by National Video Productions, in Southeast Washington.

Webster, whose film "Seizure" won first prize in the documentary class at the 1951 Venice Film Festival, is employing many unusual techniques in the filming of "Within Man's Power." An elaborately staged costume production, the film has a cast of more than sixty headed by Dorothea Jackson and Joseph Anthony — well-known in television and on the Broadway stage — also John Rodney, who starred in Warner Brothers' 'Fighter Squadron" and who has been featured in several other Hollywood productions

Boris Kauffman is director of photography. Before coming to Washington, he photographed Marlon Brando's most recent picture, "Waterfront," made in New York. Previously, Kauffman had been a cinematographer in the Paris studios Together with Webster, he has developed many unique innovations both in camera treatment and lighting for "Within Man's Power"

The picture relates, in a series of historical blackouts, the story of man's long and unceasing fight to control tuberculosis The unusual pictorial effects are achieved by unique use of lights. For instance, instead of fading scenes optically in the conventional manner, fading is accomplished with the use of dimmers to fade out selective parts of a scene individually as a means of directing the audience's attention on a specific prop or person.

To intensify the dramatic sweep of the story, the entire film is played in low key lighting The lighting effects and composition were carefully planned so as to contribute materially to the basic theme of each scene

Because all transitions, both physical and psychological, were made with the lights, the lighting chore was an extremely complicated one Often a single scene involved as many as eighteen light changes The timing had to be so precise that one scene, which plays on the screen for only one minute, required seven hours of lighting rehearsals.

"Cameraman Kauffman and I, working together, endeavored to build up each individual scene exactly as an artist constructs a painting on canvas," said Webster. "We started from absolute blackness and then, using lights as out brush strokes, 'painted' in the detail we needed to achieve the desired effect, and no more Every scene thus was reduced visually to the barest essentials"

That is so not only with regard to lights, but also to the sets themselves.

The opening and closing scenes of "Within Man's Power" are laid against conventional indoor sets, but the rest of the film consists of a series of highly stylized sets in which the scene is suggested rather than depicted in detail by the props

A room in a victorian home, for instance, appears as a white doorway and window frame against a black velvet curtain, and contains a bed, chair table and an ornate chandelier as the only props. Thus there is nothing superfluous in the set itself to distract audience attention from the central them of the story.

The black velvet technique also enabled the director to shoot in a single take of continuous action sequences which normally would have required several different sets One such sequence, for instance, involved a newspaper editor, his managing editor, and a columnist—each of whom had his own office, The "offices" are represented merely by desks set at different levels on black-draped platforms against a black velvet background On the screen, the desks and the actors seated behind them appear to be floating in air; the position of each editor with relation to the others is clearly symbolized by his "altitude" To bring them in or take them out of the scene required only the use of lights.

Another device employed by the producer was that of using the same actors throughout the film although the scenes stretch chronologically over a period of 800 years — to accentuate the differences between old and new techniques in the care of tubercular patients, and the public attitudes toward the disease

One of the big lighting problems was the difficulty of synchronizing the light changes with the continuing action on the stage. This was especially true of the bedroom scene described above. The scene opens in total blackness. The camera then fades in on a mesh curtain (a miniature rigged eighteen inches in front of the lens) which, with the aid of

(Continued on Page 298)

THIS plus one other scene comprise the only conventional ones seen in "Within Man's Power." The others are stylized simplicity.

THE PRODUCTION crew Producer Webster is seated, 2nd from left, cameraman Boris Kauffman leans against the dolly-mounted camera.

A FILM EDITOR must have patience, a "feel" for pace, an instinct for dramatic emphasis, and the ability to visualize in overall terms the impression separate scenes will convey when cut together according to script.

The Pre-Editing Stage

Like any other phase of film making, editing draws its sureness and creative force from pre-planning.

BY CHARLES LORING

ONE THING the student of motion picture production learns early is that the editing process is more than a mere mechanical procedure It is a cinematic force. For it is in the cutting room that a mass of incoherent footage gradually evolves into a finished motion picture. The cutting phase, far from being a simple job of assembly, is a creative procedure It is the final proof of the filmic pudding—for without it, a skillful script, deft direction and brilliant camera work would be just so much wasted effort.

The successful film editor has certain personal attributes that fit him for this most exacting of cinematic techniques He must have patience, a "feel" for pace, an instinct for dramatic emphasis, and the ability to visualize in overall terms the impression separate scenes will convey when cut together according to a preconceived cutting plan.

Film editing is a task that is at the same time nerve-wracking in that it demands absolute precision and timing and matching of action It is fascinating in that the editor is actually able to see the film story grow bit by bit as the various scenes, cut and properly integrated, pass through the scope of his viewer

Like any other phase of film-making editing draws its sureness and creative force from pre-planning The planning begins with the sequences of dramatic climaxes as set down in the master shooting script. It follows through in the direction and staging of the action Finally, it begins to bear fruit in the series of calculations that immediately precede actual joining together of the separate scenes—the pre-editing stage. It is this very important pre-editing stage that we shall analyse here

It is of prime importance in film editing, as well as in every other phase of film production, to have a clear cut system of operation To many film makers undertaking editing for the first time, the chore becomes a nightmare simply because they do not know where to begin Once having begun, they don't know how to control their footage. They are always wondering what became of this scene or that They get their trims mixed up with the usable footage, and they confuse the good takes with the bad.

The editor should know at all times just where to lay his hands on any scene, once the film has been broken down He should have an efficient numbering system for identifying each scene; and he should make suitable provision for filing trims instead of discarding them.

Actually, there is no one best system to use in editing film Every cutter has his own bag of tricks and techniques, which he has found, through long experience, to be most effective. Indeed, if ten first rate film cutters were given identical uncut footage of the same production, the result easily could be ten different versions

For this reason, it is not to be implied that the following system of editing is the only practical system Rather, it is offered here as one method that has worked very well in the past and may prove useful to the serious film maker undertaking editing for the first time As he goes along, however, he will discover and develop approaches which closely fit his own talents as an editor and in time will develop an individual editing style distinctly his own

Let us take the pre-editing principles step by step Let us suppose that you have just received your processed footage back from the laboratory. If, as is the generally accepted practice, each scene was carefully slated to enable the cutter to identify it and match it with the shooting script, the job of assembling the footage in sequences becomes a simple matter of cutting the scenes apart and reassembling them in numerical order. Where the scenes were not slated, a practical numbering system must then be applied to the footage before it can safely be broken down into separate scenes prior to editing.

First, mount the separate rolls of film on 400 foot reels, clearly marking each reel A B, C, and so forth The film you work with may be the original footage or a work print Today, it is the general practice to have a work print made and edge numbered to match the original negative, whether black-and-white or color This work print is used for all preliminary editing and makes unneces-

(Continued on Page 299)

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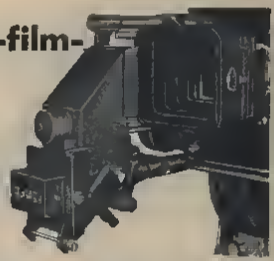

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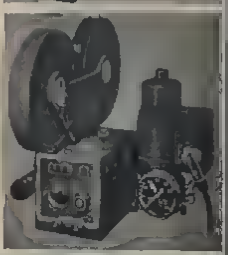

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THE TRI-LENSED Cinerama camera is explained to a bevy of French can-can girls at the famed Lido in Paris by author Joseph Brun, who photographed the girls for "Cinerama Holiday." View of camera is from rear, shows the finder tubes—one for each of the three camera lenses

The Cinerama Technique

There are no limits to dramatic compositions in Cinerama if the medium is rationally interpreted.

By JOSEPH BRUN, A.S.C.

WHEN I SAW the picture "This Is Cinerama" for the first time, I was so deeply impressed that, disregarding the limitations of Cinerama, I considered the picture the first real progressive step toward the cinema about which I had been dreaming for years.

And then, six months later, I was asked by Louis de Rochemont to photograph the second Cinerama production, which he had been assigned to produce. As we discussed Cinerama with mutual enthusiasm, I could not help wondering: "What impulse has driven this master of realism into this newest of cinema forms—a medium until now acknowledgly limited to the presentation of travelogues, operettas, and grand spectacles?"

Had he prophetically sensed that there was a great deal more to it than had thus far been revealed?

Our first experimental tests were discouraging; this medium seemed to be shrinking into a world of physical limitations. The experiences, acquired while shooting for many years what is now so unjustly called "conventional movies," seemed to narrow down now to nothing more than insuring correct exposure.

Were all my illusions to vanish? Could the barriers of physical restrictions be overcome? Would the perception of depth, size, shape and distance; the sensation of presence and participation be limited to a few conditional circumstances, or to stunts and tricks which would unavoidably become

PLANNING a camera setup for filming a sequence on snow sports in Swiss Alps. The Cinerama camera rests on hi-hat in foreground.

repetitious. Were we dealing again with a "process" exploiting the shock effect of novelty?

There is something about Cinerama besides (and maybe in spite of) ratio size and depth that makes it a definite contribution to the cinema. Cinerama is essentially a subjective medium.

The subjective camera has been, since the birth of motion pictures the great dream of directors and cameramen. The triple lensed Cinerama camera recreates a scope of vision comparable to that of human vision through the use of an extremely wide angle optics combination, which covers a field of 146 degrees —description of which is well known to the reader.* In my opinion, Cinerama is the most perfected instrument for subjective exploration.

The opinion of optical experts may differ about the true scope of human vision. It is said that the total range of visual perception is about 170 degrees. However, the field of relative sharpness is about 110 degrees, and even within this area an angle of about 120 degrees comprises the center of conscious sharpness.

In considering whether subjective or objective Cinerama offers a really new dimension in perception, it should be remembered that the Cinerama camera can "see" not only as the actor does, but can reach total identification with the spectator as if he were himself present in the environment of the actor or also involved in the action.

In Cinerama, the objective vision even if purely descriptive (and therefore not demanding subconscious interpretation) – is physiologically real, for one of the amazing facts about Cinerama is that, as in the physiological retinal process, the area of unconscious sharpness becomes a powerful factor which might be the very key to psychological stereoscopy — the element which creates the perception of presence and participation in direct relation with the audio perception.

An elementary example will illustrate this theory: I screened a scene in which the Cinerama camera had been mounted on a carousel, counter to traffic, facing the children; in the background the parents watching their children could be distinguished quite clearly. The scene was charming, but its value resided in descriptive pictorial quality — color, wide screen, and sound. In the next take, the camera was mounted in the same manner, but this time facing traffic. With the carousel running at the same speed, the background was intolerably blurred. As I am extremely sensitive to motion, I was immediately affected.

The average spectator watching motion pictures accommodates his vision very rapidly to any screen ratio, size or curvature. Once he has admitted a new depth perception he unconsciously starts a critical interpretation of his sensations, he is either captured by the subject of the picture and falls into an ecstatic condition, or is indifferent and consciously rejects the machinery of film making.

Can we create and control new sensations at will and sustain impact of so different a striking power that the audience will sense and admit birth of a new form of cinema?

The challenge and the success lie in the interpretation of the medium, for it calls for a new syntax, a new grammar, a thorough exploration of a new film technology.

Because Cinerama has an explosive quality—a dynamic power of attraction—the maker of films in this medium must analyze each scene for its degree of significance. He must approach the impact of a climax with unusual discretion, dose with humility the beauty of a purely pictorial scene, make tactful use of stereophonic sound, and develop a new sense of space and distance. The rules of motion picture dramatics as we know them, far from being obsolete, are enriched with new harmonics, new shock elements, new editorial juxtapositions.

Our experience in shooting "Cinerama Holiday" the past few months has shown that, contrary to the common belief, this medium is far from being limited to large-scope operations. Most of the shooting in the period referred to took place on location in France and in Switzerland. Here we photographed

(Continued on Page 301)

*See "And Now—Cinerama," Pg. 480, November, 1952, American Cinematographer—EDITOR.

TO FOLLOW skiers on downgrade flight, camera was suspended on framework mounted on sleigh. Once it capsized, tossed operator in snowbank.

CAMERA mounted on motor-sled for series of trucking shots. Note 5 microphones overhead for stereophonic sound pickup.

BOOSTER lights were mounted on sleighs to facilitate moving. Note filter gels on lamps to correct light for daylight color film.

WHILE spectacular scenic views are important in travel films, it is the revealing shots of people at work and at play that complete the picture

SOUND recorded on the spot with tape recorder can give a tremendous lift to the interest of a travel film made in a foreign locale.

Analyzing Documentary Technique

By CHARLES L ANDERSON

WHAT IS THE DIFFERENCE between a successful and unsuccessful documentary film? After talking to many 16mm movie makers and listening to discussions among students of cinema, this writer must conclude that the answer isn't very well known. The neophyte film maker judging a documentary will invariably speak of the quality of the photography, direction, writing, and the editing. Thinking is in terms of "good shots," "well-directed scenes," "interesting narration," and "good cuts" when evaluating a picture. But the technique of organizing a film and its individual sequences is likely to escape notice.

There are several types of documentaries, and in spite of obvious differences they share many techniques. The same methods of presenting subject matter may be found in pictures on, say, airplane design and economics. The use a picture or its subject matter will be put to doesn't automatically dictate how the material should be handled, as some film makers unfortunately think. There is no need for pictures to be all alike, although many of the best producers today often draw upon a few time-tested devices and formats.

One useful plan of organizing a film is to tell the story of a complex business in terms of a few people or objects. Audiences prefer information that isn't left in too abstract form. The film "United 6534," previously covered in the American Cinematographer from the production viewpoint, is a fine example of organization. (It is available at several United Airlines offices, making it easy to obtain for study.) An airline's many operations shown in one film could produce a very confusing picture. But the producers have arranged the material in "United 6534" in such a way that no essentials are left out — yet the final result is both entertaining and instructive.

The film succeeded because it had been well organized. The camera follows one particular plane through its overhauling in United's maintenance plant and then on a transcontinental flight. If scenes of the maintenance base, flight control offices, ticket office, airfields, and the flight itself had been included at random without any strong link audiences would have been hard put to get a comprehensive view of United's operations. The "gimmick" here, following one plane and the people concerned with it, gives a straight documentary film a plausible story.

Few subjects are so broad that they can't be given this treatment when desirable. Another example is a film on the Western Pacific Railroad which follows one person. A young man interested in working for the line is sent on a trip in a caboose to get a better idea of the company and the jobs available. His freight ride along the main line and his talks with the road's employees bring to audiences a comprehensive picture of the railroad system.

The variations on this "following" theme are limitless. It has made economic ideas palatable by showing how one family may be affected by economic activity. Life and health insurance films demonstrate the statistics of insurance in terms of a few people. Amateur and professional film makers have helped community fund drives with films that specifically show how people benefit from the donations.

SHOTS of native handiwork and skills will need informative narration for maximum effectiveness, and should be filmed with this in mind

Theatrical short subjects cleverly use this device more often than is realized. A Warner Bros. two reel Technicolor film on the annual Soap Box Derby frequently cuts to the activities of one boy as he prepares for the race. At the finish, he wins the race. The camera crew probably had him re-enact important pre-race preparations after the event to obtain the necessary continuity footage.

Another familiar format is the "semi-newsreel." The connecting link here is not one person or object but rather a simple continuity in time and action. Cine photographers are more often called upon to record some particular action on film rather than tackle an abstract idea. For want of a better term, we'll call these straightforward films semi-newsreels. These pictures tell what happens. In their simplest form they offer a clear narrative of events. But plenty of filming skill is needed in shooting first-rate films of this type.

The cine photographer undertaking films of this sort must be able to discern what phases of a given action will look best on the screen. For example, he may be shooting a county fair. Here the exhibitions having the most color and action will probably supply the most interesting footage. Exhibits of handicraft objects, etc., will have to depend on narration to put their importance across, and the filmer must gauge their value in choosing shots unless he has an unlimited supply of film.

A commercial picture made of the California State Fair included many telephoto candid shots of the visitors. A cameraman not alert to the needs of semi-newsreels might have overlooked the importance of such shots, forgetting that a well rounded film record includes the formal and the informal, the expected and the unexpected.

Knowing how to operate a camera and compose good shots is only half the technique. The other half is being able to spot the really worthwhile scenes. Let's say you have an assignment to film an employees' annual picnic. Sports and games will be worth filming for their action. Some large scenic views will serve the purpose of telling where and what the picnic locale is like. Then shots of small groups meeting for lunch and conversation will introduce the folks participating in the picnic.

Whether a film will be shown silent or with added narration can make a lot of difference in how it is photographed. The silent picture must tell its story and hold interest entirely by what is seen. Subtitles, of course, are necessary here, but too many may prove annoying. Fortunately, sound is an accepted part of nearly all commercial 16mm work today, and you can rely on narration to fill in the continuity. If you're not filming with a prepared script, it's a good idea to imagine what will be discussed at each scene and take any extra shots needed to cover the narration. As an example, an industrial photographer not long ago filmed a sequence of raw materials being delivered at a paint factory. He hadn't been given specific directions, but he decided to include closeups of the printing on the various shipping cases. Later, narration about the many different chemicals needed for modern paint accompanied these shots for maximum effect.

A common challenge for 16mm film makers is the very technical picture that can easily become dull. Writers and directors have searched for ways of putting some entertainment into such factual films. The trouble here is that clients often expect a picture to serve too many purposes; a technical film on a company's manufacturing process may be designed for both engineers and the general public. Thus, while telling engineers what they want to know, there is also the risk of boring average audiences. You may want to leave the human interest and comic relief to the men who'll prepare the narration, but a better plan is to organize the picture ahead of time to include some changes of pace.

Audience interest in technical pictures increases when viewers understand what the material shown means to them personally. A film on the petroleum industry wisely reminds the audience that the methods and equipment shown are all designed to bring them better petroleum products at lower cost. If it weren't for these references audiences might overlook the production's significance.

A documentary on the bituminous coal industry begins not with a mine sequence, but with farm scenes. Narration describes the farm's dependance on coal (as a source of electric power at the generating station), tells how coal aids the manufacture of farm implements, etc.), and because everyone knows the importance of farms in the nation's economy, the value of coal is established in the first few seconds.

The organization of travel film production today is pretty well standardized. A good travel film shows the best scenes along the cameraman's route, giving the audience a vicarious tour of days or months in a very short time. The secret here, as revealed in the best films of this type, is in finding plenty of good scenes that typify a country. Spectacular scenic views are missed by no cameramen, but it is the

(Continued on Page 300)

Common Sense In Cutting-in Titles

The skill and care that is put into each step of the mechanical phase of title making goes far naught if the titles are ineptly spliced into the film.

By JOHN FORBES

THE EFFECTIVENESS of a good titling job lies not altogether in colorful backgrounds, ornamentation and trick effects, but also in proper placement of each title in the film. In a great many amateur films descriptive titles are cut in too early or too late or spoken titles are inserted *after* a person is seen speaking the words. It is a wise and skillful movie maker who knows exactly at what frame to cut in a title—yet this skill is by no means reserved for a few. Any amateur can do it after a little careful study and experimentation.

It is unfortunate that more movie amateurs do not have opportunity to see some of the old silent motion pictures as a means of studying good titling technique. This technique, as applied to amateur movies, is no different than it was in the old days of silent motion pictures, when timing a title properly would step up interest, accent a dramatic effect, or motivate the plot just as it will for the amateur's movie today.

It frequently happens that even after a most thorough analysis of a film, a set of titles are made that, after being spliced into the picture, creat a continuity change in the film that wasn't counted on. Sometimes this is due to the tendency of titles to slow down the action caused by the title cutting into the action and momentarily withholding it from the audience.

For example, an untitled roll of film on the subject of deep sea fishing may appear a superb job of filming as it unfolds on the screen—action swift, tense, exciting. To the lay fisherman, the action as pictured needs no explanation. The filmer, however, decides to add titles for the edification of his family and friends. And then what happens?

What was originally a highly interesting picturization of deep sea fishing has become a slower, less interesting series of fishing scenes. The titles, though necessary, have changed tempo of the film—have stolen the tense, exciting atmosphere the film contained before it was edited. Close analysis shows that the trouble lay in unwise placement of titles. They should not have been cut into the midst of action. And this brings us to three important rules of title cutting and editing:

Don't use a title where it will interrupt interesting action.

Don't allow a title to interfere with the suspense the action is creating.

Don't permit attention of audience to wander because of too many titles, or titles that are too long. Fast action requires the interest of titles.

Often a title which looked good on paper will have to be re-written and refilmed. The message it is to convey must be so written it can be placed before or after peak of an action sequence and lose none of its effect. In spite of the emphasis placed on brief, terse, titles it often becomes expedient to use one lengthy title in place of several short ones in order to avoid cutting frequently into important action. But even in such instances, brevity should invariably be the watchword in title composition.

Again taking the deep-sea fishing film for example, let us assume we have a sequence picturing bringing a marlin swordfish to gaff, consisting of the following scenes: medium shot of fisherman in deck chair fighting the booked fish, long shot of fish cavorting in water at end of line; telephoto shot of fish fighting line, repeat shot of fisherman reeling in line, medium shot of fish now nearer boat. Another fisherman in foreground with gaff hook, ready to

(Continued on Page 296)

There's more to titling movies than the mere mechanics of printing and photographing them. To be effective, they must be skillfully inserted in the film they are designed to describe. A well-made title, ineptly cut, can hinder rather than improve your picture.

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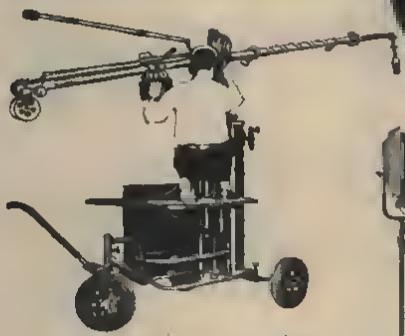

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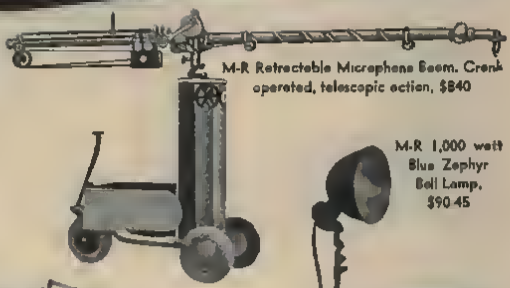

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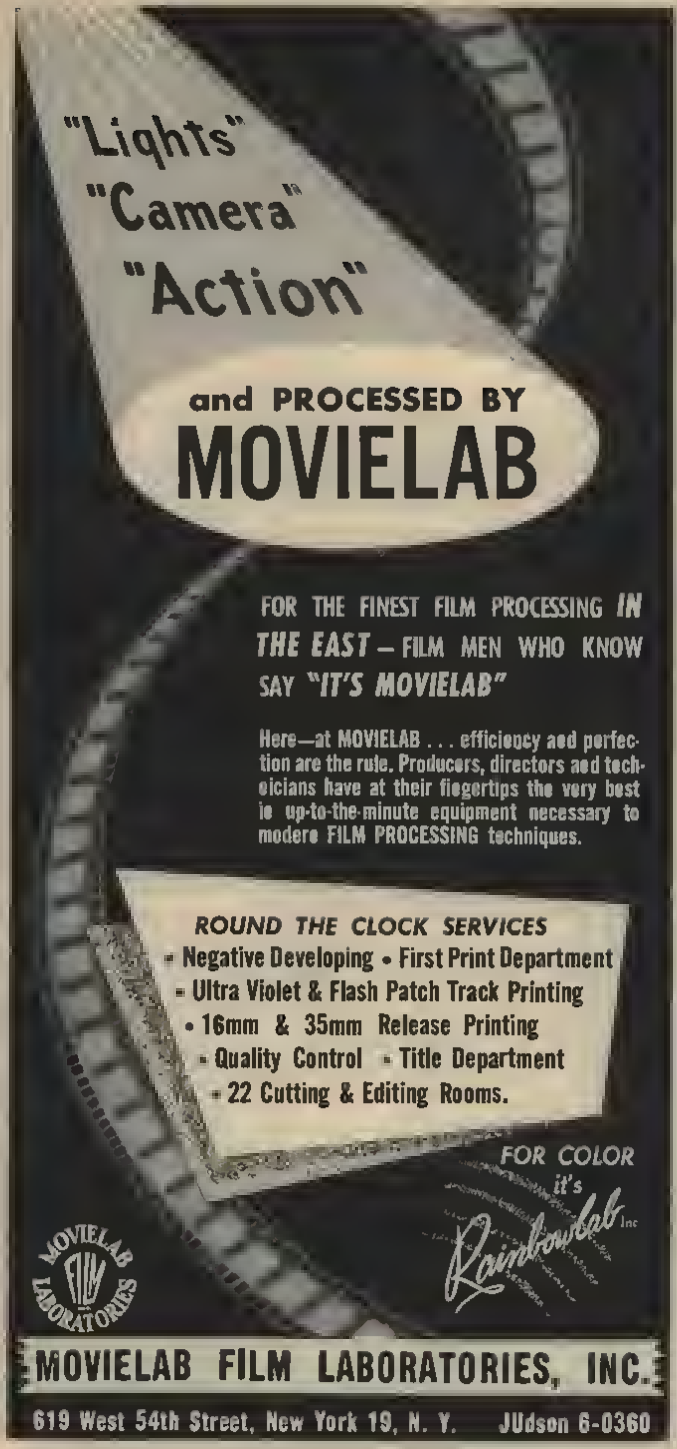
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CUTTING-IN TITLES

(Continued from Page 294)

assist with landing of fish. Struggling fish is gaffed and hauled aboard.

Some filmers might insert brief titles between every one of these scenes such as: "Joe hooks a marlin!" "The marlin fights back . . . . " "Looks like she's safe!" "Landed at last!"—four annoying interruptions in a highly interesting sequence. How much better to precede the sequence thus: "Third time out Joe hooks and safely lands a fighting marlin!" and then conclude with "One hundred twenty-five pounds of fighting fish for which Joe gave up five!"

The nature of a film sequence and subject of film itself will dictate where titles should be placed. In most instances, titles will precede scenes or action they describe. Yet there are instances where a descriptive title is better placed after the scene it refers to. This, of course, must be determined before title is written.

In photoplays that build to a heavy action climax, it is best to taper off on titles as much as possible in the closing sequences so that the climax will not be retarded. Then there are pictures in which this rule should be reversed—the climax or high point of interest may be accented by means of titles. An example of this would be in a documentary picture in which some process or operation is being demonstrated. Take for example an Indian forming pottery on a primitive potter's wheel. A sequence of this action would be greatly strengthened by the addition of two or three short titles giving pertinent facts regarding the Indian's pottery making operations, his reputation as a potter, and perhaps the price he may ask for the finished article. The sequence might be considered complete without such titles, but few will deny that titles would add much in interest to the picture as a whole without proving too diverting.

Titles often tend to consume time where a long operation must be shown in almost continuous action. Unlike with the deep sea fishing film, where the camera might run continuously on the interest-absorbing action of the fish landing incident, continuous camera action on the Indian pottery maker would play far too long on the screen unless otherwise broken up by titles. The skilled filmer of course, would further diversify this sequence by intercutting closeups and angle shots of the action.

Where action in the film is slow, titles should balance the action and remain on the screen longer by virtue of greater wording. In action sequences, the audience, as a rule, becomes alert and capable of reading brief titles quick-

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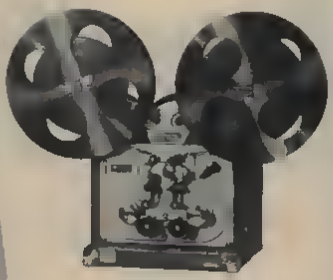

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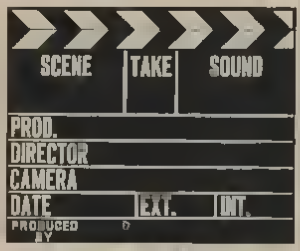

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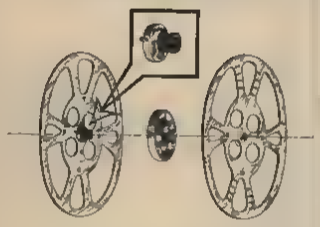

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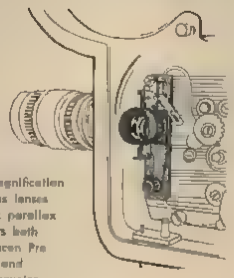

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ly A good rule to follow in filming titles is to allow more footage than the established reading time and then cut them into the picture their full length In this way, it will be much easier to determine how long a title should run on the screen by projecting it along with the picture several times Where titles are too long in actual screen time, they can be shortened. But those filmed too short, must be remade In the long run, all titles are better if they are too long than too short in screening time. In every large audience, there is at least one or two spectators whose ability to read is hampered by poor vision, or perhaps because of the small lettering in the title.

Spoken titles are controlled by none of the rules or regulations that apply to the descriptive title except, perhaps, that they should be as brief as possible The point of insertion in the film for the spoken title is determined by the action; yet many amateur filmers continue to cut in a spoken title before or after the scene showing the person speaking.

For the most natural effect, let the scene run a few frames to show the person starting to speak, then cut in the title, and continue with four or five frames at end of scene showing person completing speech Where the speech is long, it becomes necessary to delete some of the footage in middle of the pictured action, allowing the title to "do the talking" instead of the person in the picture.

Another technique is to cut directly from the title, not back to the person talking, but to the person spoken to

So, in the editing phase of your film making, when it comes time to cut in the descriptive—or sub-titles, analyse the scene carefully in order to determine just where the title should be placed. Unless you do, the film will be cut, the title will be spliced, and it will then be too late to move it forward or backward a few frames to gain the intended effect

LIGHT PLAYS A PART

(Continued from Page 287)

lights, is made to dissolve as each of the various actors and props are brought in or revealed by means of strong light directed upon them. In contrast with this fading technique, there were very few optical fades or dissolves used in the picture.

Another very tricky photographic problem was posed in a scene in which the script called for an exterior shot sandwiched in among the highly-stylized interiors — something which could easily have provided a jarring note in the predominantly black velvet

sequences already described. The exterior in question was a shot of a group of mourners walking down a cobblestoned path in a cemetery.

The problem was licked by setting the camera right on the ground and shooting through a shadow-box covered with scrim cut into an irregular pattern. The mood of the finished scene was exactly that established in the black velvet interiors—low key and heavy shadows, and including the same effect of rimming the scene with a black border seen in the interiors.

There is nothing unusual or remarkable about the physical equipment used in filming the picture. It was the manner in which the equipment was employed which contributed to the unusual quality of the production. The camera was a standard Mitchell BNC. The lights—controlled by a 9-bank 2-kw and a 6-bank 750-watt dimmer board interlocked—included the usual 750's, 300's and 200's and inkies, plus an occasional 2-kw lamp. The 750 spots were the predominant lights.

"Within Man's Power" is to receive its world premiere in Atlantic City, New Jersey, May 17th, at the 50th annual convention of the National Tuberculosis Association, sponsors of the production. It is scheduled to be released nationally in both 35mm and 16mm.

THE PRE-EDITING STAGE

(Continued from Page 288)

sary the handling of the original film where it might be subject to scratches or other damage. After the work print has been cut and edited the original negative can be cut to match it, using the edge numbers as a guide.

Working with the 400 foot reels of film the next step is to project them and make a penciled memorandum of each scene as a guide when cutting. The information should include the roll number, a brief description of the contents of the scene, and any additional remarks that might serve as a guide later. Out-of-focus or poorly exposed takes simply may be listed without giving them a roll number. Where there is more than one take of a given scene, this should be identified by a sub number and a notation indicating which is the best take.

Next, record the data for each good scene on a 3 x 5 file card, including the image size (long shot, closeup, and so forth), the camera angle, and a brief description of the action. Indicate the roll number in the lower right hand corner of the card. Scene B-8, for example would refer to the eighth scene on the B reel of unedited footage.

Next project the film for the second time. During this screening, try to piece

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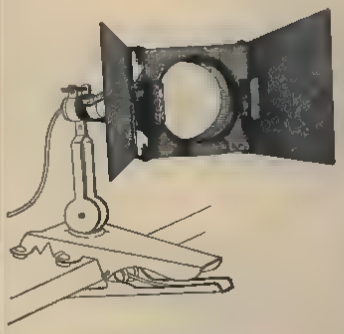
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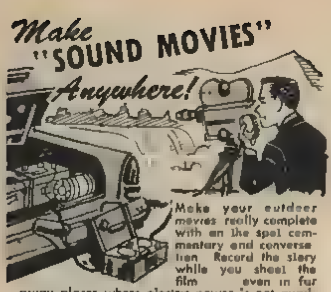

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together in your mind as much of the film's sense as possible. Take additional notes on details that may have escaped you during the first screening. Follow your 3 x 5 cards closely as the film unfolds on the screen, and record any additional data alongside its appropriate scene

During this screening, also watch the footage carefully to note any discrepancies which may exist between continuous action in medium shots and closeups At this time you may find that although a certain bit of action seemed essential as set down in the shooting script, it is quite meaningless when seen on the screen Note the scenes that seem to dovetail naturally in content or angle, revealing a relationship that was not evident in the script Continue to refer to your cards as you view the footage, so that you will mentally associate each scene with the data you have recorded for it.

With your memory thus refreshed from having viewed the film a second time, arrange your 3 x 5 cards in the order in which you feel the scenes should appear in the final cut of the film

It is quite possible that having carefully reviewed the footage during screening, you will find that the scenes naturally fall into a cutting sequence that is a bit different from your original concept as set down in the script. In that case juggle the scenes (the 3 x 5 cards) about and make script notations of the proposed changes in scene order As a final check on continuity, it may be necessary to screen the footage once more before breaking it down in separate scenes You cannot possibly know your footage too well

When all the 3 x 5 cards have been arranged in what you think will be the most effective continuity order, number them consecutively, placing the new continuity number in the upper left corner of the card so that it will not be confused with the roll number The roll number will indicate where a scene of a given description is now located. The continuity number will tell exactly where that particular scene will fit into the cut footage. Afterward, arrange the cards in rotation according to roll number and you will then be ready to break down the footage into separate scenes

To do this efficiently, a peg-board or a pigeon-hole tray is a necessity. A peg-board is a flat square board with nails or wooden pegs set into it in rows of ten pegs each, and with the rows about four inches apart. The pegs are numbered in rotation from 1 to 100 by means of letters stamped or painted on the board next to each peg Here the various scenes are filed and held ready for use when it comes time to cut and splice Each scene is rolled up and held together with a rubber band and slipped over the peg

The pigeon hole tray is an alternative method and is usually about 1 inch deep and divided into squares 2½ x 2½ inches. These trays can be made of cardboard or wood As with the peg-board, the pigeon holes are arranged ten in a row and are numbered consecutively from left to right with the numbers being stamped or painted in the center of each pigeon hole. The advantage of the pigeon-hole tray over the peg-board is that it is unnecessary to put rubber bands or adhesive tape on your film chips in order to file them.

To break down your film into separate scenes, use the 3 x 5 file cards as a guide Start with Roll A and wind off the scenes one by one Scene A-1, for example, may carry the continuity number of 57 in the upper left corner of the 3 x 5 card In that case, unwind the scene, write the number of 57 with a grease pencil on the forward end of it, roll it up and place it in pigeon hole number 57 on the tray or on peg number 57 on the peg-board

In the same manner, continue on through each scene of each reel of new footage, describing any out-of-focus or poorly exposed takes as they are encountered The bad takes should be saved and numbered and placed in empty film cans (or typewriter ribbon cans, where 16mm film is being used). You can store up to ten scenes in each can. Be sure to place a label on the can bearing all the numbers of the scenes stored within These discarded takes have a way of proving useful later.

When all of the film has been completely broken down into individual scenes, the peg-board or pigeon hole tray will be filled with the separate scene strips, each neatly rolled up and numbered and ready for the next step—which is cutting them into the pattern represented by the 3 x 5 cards

The basic steps in film cutting will now have been taken care of The wheat will be separated from the chaff, so to speak All the extraneous footage will have been discarded and put out of the way so as not to interfere with the orderly process of cutting the selected footage.

The next step is the creative cutting of the film This is the phase of the job that will be discussed fully in a separate article next month.

DOCUMENTARY TECHNIQUE

(Continued from Page 293)

revealing shots of the people at work and play, little architectural details, market places, private homes, and amusement places that complete the picture. When desired, the regular organizational methods may be applied to travel reels, too

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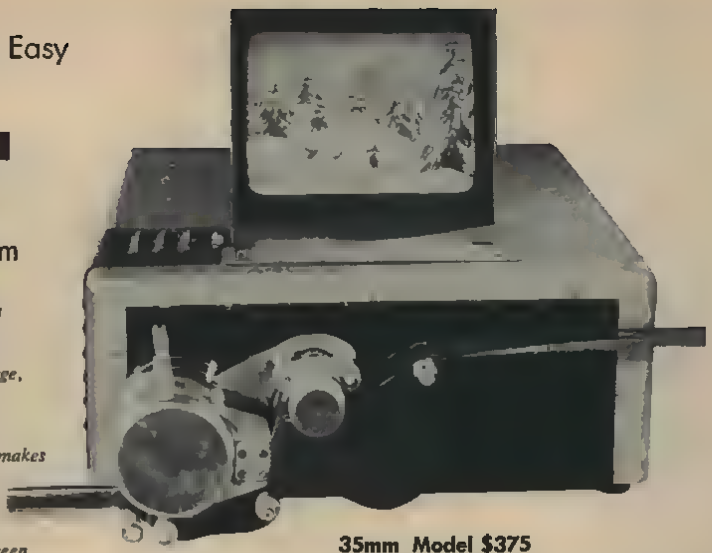

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CINERAMA

(Continued from Page 291)

scenes both vast and small in scope. These ranged from the Cathedral of Notre Dame de Paris, and the whole stage of the Opera de Paris to the narrow confines of the tiny Guignol Theatre (a marionette show for children). With the bulky, three lensed Cinerama camera we shot scenes in two-room apartments and in other similar limited locations, which would be a problem to shoot even with the conventional 35mm camera. But the intimate shots proved to be as desirable and effective as shots of large-scope subjects. This proves there really is no limit to dramatic composition in Cinerama if the medium is rationally interpreted.

It is impossible to say arbitrarily that the closeup is obsolete, that the days of rapid editing are over; this would mean that the wide angle of human vision does not tolerate selective concentration because "it sees it all." It would be a presumptuous anticipation to narrow down the rules of this medium.

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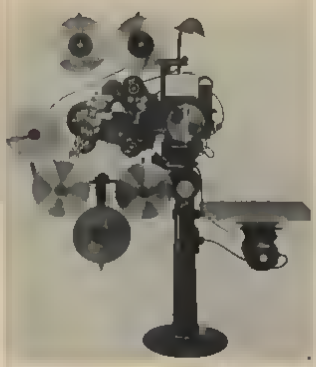

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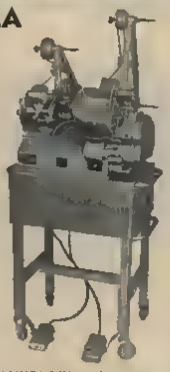

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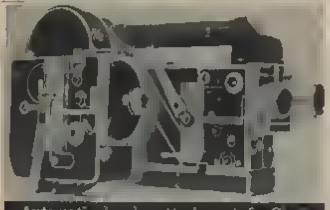

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crane shots all have been successfully made with the Cinerama camera; and the resultant footage suggests a new format that opens a still greater field for daring compositions Cinerama permits interpretive treatment as well as conventional It is the misuse of the Cinerama format, the lack of understanding of the new medium which could mislead pioneers in striving for the true goal of the medium.

In shooting "Cinerama Holiday," we endeavored to use the subjective approach with our camera, whenever it was justified. The vehicles used to transport the camera in order to create the illusion of audience participation ranged from bobsleigh and skis to a bicycle plus a few extraordinary contraptions specially built for us by ingenious Swiss and French mechanics.

It was for the sake of subjective treatment that would give the audience the sensation of skiing that my operative cameraman, Gayne Resher, risked his life and nearly lost it when the camera, hanging on a special mount designed to keep it vertical, capsized on a steep slope and flipped over twice, throwing him clear and into a snowbank

The matter of stereophonic sound, which is an important adjunct of Cinerama, must be considered by the cameraman whenever planning a shot with the Cinerama camera The sound engineer must be consulted, not only because up to seven microphones must be concealed in the field or near the camera, but also because the audio-visual association is so close that the desired composition, camera movement and set illumination can be properly achieved only if the cameraman is conscious of the constant presence of sound whether originating in the field of vision or off screen.

Here sound perspective is so accurate that the cameraman cannot ignore the rules it automatically presents, rules which influence both composition and set illumination Thus, the audio impact becomes an inherent part of the photography. Nor can the Cinerama cameraman ignore the rules of editorial progression pertaining to the medium Upon these rules may depend the choice of camera angle, the visual axis selected and the degree of audience participation to be attained

More than ever before, the writers, directors, cameramen, sound technicians, editors, set designers, etc., must work in close cooperation in creating a Cinerama production Any lack of teamwork in the preparation inevitably leads to false depth perception distorted stereophony and conflicting audio-visual effects

These things we are doing with Cinerama these are only the first steps toward a great new film technique. There is little doubt that our wide-screen will very soon be perfected to include variable screen ratios. The validity of this technique is borne out by the success of the System Picot in France where producers of animated cartoons use a variable format, not so much for sake of variety, but to insert into a definite functional frame the dramatic values of a scene.

Whatever will be the technical media in use eventually, the physical difficulties will be overcome. Wide-angle vision, variable screen ratio, stereophonic sound — all are here to stay, whether achieved directly, anamorphically, photographically, electronically, or magnetically. Indeed, the cinematographer can look forward with enthusiasm to fascinating years ahead

LIGHTING PRODUCTIONS FOR BUSINESS SCREEN

(Continued from Page 284)

In 16mm film production, the cinematographer's major objective—aside from the basic mechanical problem of getting enough light to achieve desirable exposures—is to light the sets so that they will appear natural to the situation, in key with the subject, and visually interesting To accomplish this, it is necessary for the cameraman to have sufficient set lighting units available to meet adequately all the demands of his set lighting plans.

Almost every shooting script, whether it be for an entertainment feature film or a business, promotion or training film, invariably includes sequences which demand lighting that will accent a specific mood This calls for special lighting skill Some sequences, for example, may call for high-key treatment to complement the light, positive, buoyant mood indicated in the script Other sequences, particularly those having a somber, mysterious, primitive, highly dramatic, or nocturnal mood—and you get these in industrial film scripts, too,—will register most effectively where a low-key lighting pattern is employed.

The high-key lighting scheme involves a generally high level of illumination with relatively light shadow areas and crisp highlights pointing up various elements within the set, the background is invariably brightly lighted, and heavy shadows are avoided.

Low-key lighting, on the other hand, is characterized by general low-level illumination, a softer key light, less fill light, and greater depth of shadow The purpose of low key lighting is not to create mood alone but—in the photography of product advertising films especially—

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to concentrate audience attention on some important function, product, appliance, etc., withholding strong light from all but the most important object or areas within the set.

Once the mood and the lighting key which will best complement it has been decided there remains one other consideration—that of light source, that is, the element which obviously supplies the natural lighting of the set—i.e., sun coming through a window, an open doorway, a chandelier, fireplace, etc. Whatever is established in the script as the source, the set illumination then should appear as coming naturally from that source. If the setting is a modern office, outside source light may be emphasized by having the pattern of a venetian blind cast upon one wall. If the setting is a modest dining room, the light may appear to be coming from an overhead chandelier. And for a closeup of a man reading in his easy chair the source light will obviously come from the reading lamp at his side.

In general practice, before the cameraman lights his set, he familiarizes himself with the action pattern of the sequence so that no significant bit of business will be lost through playing it in a dimly lighted area. Here a run-through of the action by the players or their stand-ins will usually give an idea

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of the dramatic demands on the lighting.

In arranging actual lighting pattern, the key-light is set up first. Just how large a unit or units to be used here will depend upon such factors as the mood of the sequence, the brightness of the indicated source, the working aperture of the lens favored by the cameraman, and whether the production is to be filmed in black-and-white or color. In black-and-white photography, a single Baby Keg-lite may be sufficient to supply key illumination for a low-key scene or sequence. In color photography, however, a stronger light source will be required.

The fill-light is the next to receive consideration. The amount of fill will depend on the general key lighting of the scene, the mood, and the indicated source. Low-key lighting, of course, requires very little fill light, since shadows are an important adjunct to this type illumination.

A high-key sequence, on the other hand, demands an almost total elimination of shadows in favor of sparkling brilliance. This does not imply that high-key lighting should be flat, it merely calls for less contrast between key-light and fill light. Color photography, generallly speaking, also demands more fill-light than does black-and-white—for sequences of similar mood.

The type of unit to be used for supplying fill light is usually determined by the sequence to be photographed. For high-key lighting, a lamp as heavy as the standard key light units may be used; it should be toned down, however, with scrims and diffusers. For low-key lighting, a small spotlight, flooded out for softness but screened down by means of barn doors or a snoot is often used. A single or double "broad" makes a perfect fill-light source for B&W photography, since it produces relatively "shadowless" light. For color photography, the Mole-Richardson Cinelite is a more appropriate unit.

With the key light and main fill-light set, the cameraman will next consider lighting the background of the set. Here an exposure meter can be used to good advantage in figuring, mathematically, the correct ratios between keylight and background illumination.

The relative brightness of the background will often depend primarily on the mood and general key lighting already established for the scene. In high-key photography, the background is often brighter than the key-light. In low-key lighting there is sometimes virtually no background lighting—or perhaps just enough to accent the contours of selected elements of the background structure or setting.

Background illumination is usually supplied by light units set up out of lens range of the camera in such a manner that the light falls entirely on the background. Where the light units are mounted overhead and tilted downward, there is less danger of producing conflicting shadows that clutter up a composition. In keeping with the source light pattern, the background illumination should also appear to originate with the established source light object. This may be within the scene itself—a chandelier, a bright table or chair-side lamp, etc. Where such lamps are adjacent to a wall, a spotlight should be used to throw light on the wall back of the lamp to stimulate the natural lighting result.

Back lighting and top-lighting are essential to produce three-dimensional depth to a scene, and to bring out the contours of furniture, props and texture of various objects of set decor. Like the back-light units, these, too, should be mounted overhead for the most natural lighting effect.

A technique which is valuable from the standpoint of economy and art is that of lighting only certain areas or planes of the set and allowing the rest to fall off into darkness. In such a setting the players move from normal lighting to cross-lighting to silhouette in a manner which can be very dramatic pictorially—not to mention easy on the equipment budget. Such lighting, however, should be logically motivated by mood or story action, and not used too frequently in a single production.

In general, while set lighting for 16mm commercial films need not be elaborate or complicated, it should be kept in mind, however, that the movie-going public has become conditioned to the technical excellence of the entertainment photoplay, and it naturally expects similar quality in any type of motion picture shown publicly.

Carefully chosen lighting units (a wide range of units are now available for rental, relieving the producer of the need to buy), a modicum of originality, and the exercise of moderate care in balancing lights will enable the commercial film photographer to obtain results comparable to the best studio-photographed feature film.

CLARIFICATION on film music copyright laws has been passed along by the Motion Picture Service of the U.S. Department of Agriculture. Information it obtained from the Library of Congress reveals that the nearest thing to a listing of "public domain" music is its "Catalog of Copyright Entries," a yearly listing. Incidentally, music may be protected by copyright for a total of 56 years. If producers have questions about a particular piece of music, the library of Congress will advise on clearance, but cannot furnish a blanket listing of cleared music.

NEW LOOK IN 3-D

A PRIVATE SHOWING of *Naturama*, termed the "New Look" in motion picture presentation, was given last month in Dayton, Ohio, which saw the marriage of super wide-screen and 3-D movies. The picture proportions were the same as CinemaScope and the picture was shown in true 3-D, with both images being projected from a single strip of film. The demonstration film included both black-and-white and color footage from feature-length releases made in Hollywood.

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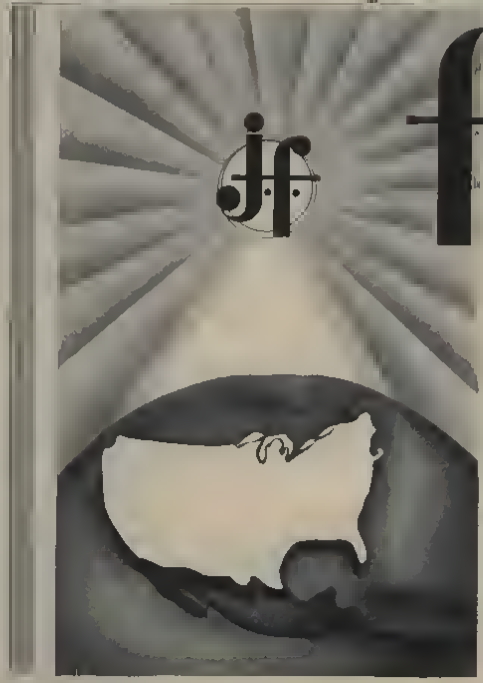

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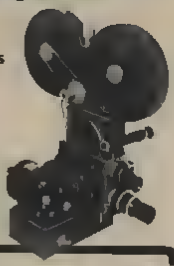

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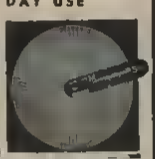

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ALLIED ARTISTS

● HAROLD LIPSTEIN, Adventures of Hajji Baba," (Technicolor CinemaScope) with Elaine Stewart and John Derek. Don Weis, director

● HARRY NEUMANN, "Jungle Gents," with Leo Gorcey and Huntz Hall Edward Bernds director.

COLUMBIA

● ARTHUR E ARLING, "Three for the Show," (Technicolor; CinemaScope) with Betty Grable Marge and Gower Champion H C Potter, director

● WILFRED CLINE, "Violent Men, (Technicolor) with Randolph Scott and Jocelyn Brando. Bruce Humberstone, director

● BURNETT GUFFEY, "Rough Company," Technicolor CinemaScope) with Glenn Ford and Barbara Stanwyck Rudy Mate, director

● CHARLES B. LANG, JR., "Phffft," with Judy Holliday and Jack Lemmon Mark Robson, director

● CHARLES LAWTON, JR., "The Long Gray Line," (Technicolor, CinemaScope) with Tyrone Power and Maureen O'Hara John Ford, director

● HENRY FREULICH, "The Moon Man, with Johnny Weissmuller and Jean Byron Charles Gould, director

METRO-GOLDWYN-MAYER

● JOSEPH RUTTENBERG "The Last Time I Saw Paris," (Color, wide-screen) with Elizabeth Taylor, Van Johnson Richard Brooks, director.

● ROBERT PLANCK, "Athena" (Technicolor wide screen) with Jane Powell and Edmund Purdom Joe Pasternak, director

● PAUL C VOGEL, "Green Fire," (Eastman color, wide screen) with Stewart Granger, and Grace Kelly Andrew Marton, director

● JOHN SEITZ, "Rogue Cop," (Wide-screen) with Robert Taylor and Janet Leigh Roy Rowland, director

● GEORGE FOLSEY, "Deep In My Heart," (Color, CinemaScope) with Jose Ferrer Donna Reed and Merle Oberon Stanley Donen, director

● ARTHUR ARLING, "The Glass Slipper," (Eastman color, wide screen) with Leslie Caron and Michael Wilding Charles Walters, director

● CHARLES ROSHER, "Jupiter's Darling," (Eastman color, CinemaScope) with Esther Williams and Howard Keel George Sidney, director

PARAMOUNT

● WILLIAM DANIELS, "Strategic Air Command," (Technicolor, VistaVision) with Jimmy Stewart and June Allyson Anthony Mann director.

● DANIEL FAPP, "Run for Cover," (Technicolor, VistaVision) with James Cagney and Viveca Lindfors Nicholas Ray, director

R.K.O.

● JOHN ALTON, "Where the Wind Dies," (Technicolor Superscope) with Cornel Wilde, Yvonne de Carlo, and John Dierkes Allan Dwan, director

● WILLIAM SNYDER, "The Conqueror," (Technicolor, wide screen) with John Wayne and Susan Hayward Dick Powell, director.

20TH CENTURY-FOX

● JOE MACDONALD, "Woman's World," (Technicolor, CinemaScope) with Clifton Webb and June Allyson Jean Negulesco, director

● LEON SHAMROY, "The Egyptian," (Technicolor CinemaScope) with Edmund Purdom and Jean Simmons Michael Curtiz, director

● LEO TOVER, "Untamed." (Technicolor CinemaScope) shooting backgrounds in Ireland Henry King, director

UNIVERSAL-INTERNATIONAL

● MAURY GERTSMAN, "So This Is Paris," (Technicolor wide-screen) with Tony Curtis, and Gloria De Haven Richard Quine, director

● RUSSELL METTY, "Shadow Valley," (Technicolor wide-screen) with Rory Calhoun and Colleen Miller Richard Carlson director

● GEORGE ROBINSON, "Destry," (Technicolor, wide-screen) with Audie Murphy and Mari Blanchard George Marshall, director

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- EDWARD COLMAN, "Dragnet" with Jan Webb, Ben Alexander and Ann Robinson. Jack Webb director.

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- FREDERICK GATELY, "The Bandit" (Josef Shaftel Prods.—Eastman color SuperScope) with Arthur Kennedy, Bette St. John, and Eugene Iglesias. Edgar Ulmer, director.
- RAY JUNE. "This Is My Love" (Allan Dowling Pictures. RKO release. Eastman color, wide screen) with Linda Darnell and Rich Jason. Stuart Heisler, director.
- FRANK PLANER, "20,000 Leagues Under The Sea," (Walt Disney Prod., Technicolor CinemaScope) with Kirk Douglas, James Mason, and Peter Lorre. Richard Fleischer director.
- ERNEST LASZLO, "Vera Cruz," (Hecht Lancaster Prod. for U-A, Technicolor, Wide screen shooting in Mexico) with Gary Cooper and Burt Lancaster. Robert Aldrich director.

(Continued on Page 310)

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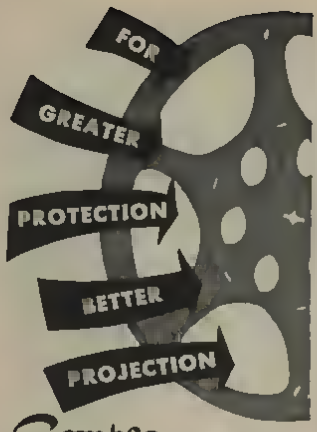

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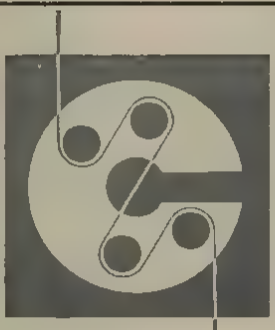

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HOLLYWOOD'S GREATEST UNDERWATER VENTURE

(Continued from Page 283)

Many of the crew, like myself, were experienced in using underwater equipment. Others were readily trained to the equipment that permits normal breathing and moving about underwater with remarkable safety.

For most of the crew, this equipment consisted of the well-known Aqua-lung with air-chambers that strap to the back and permit one to remain submerged for 60 minutes; a pair of swim fins; and a diving mask. Augmenting the crew and cast directly involved in the underwater sequences were a number of expert divers whose duty it was to watch over the neophytes and their equipment and render quick and effective aid in event anything went wrong.

One of these was chief diving expert Fred Zendar. Another was Salvage Man Frank Higgins, the only diver to wear a regulation Navy diver's suit with surface airlines and a built-in telephone. He served as communications link between men and underwater and the crew on deck of the LCT craft, floating base of operations.

Until now, almost all underwater footage for Hollywood feature productions has been shot with portable, lightweight cameras such as the Eclair Camerette or the Arriflex encased in pressurized, water-tight chambers. The limited film capacity of these cameras made them impractical for our work. In their place was provided a standard Mitchell camera mounted within a streamlined, pressurized underwater blimp—a remarkable piece of equipment turned out by Walt Disney studio engineers.

Having a built-in power source for the camera motor, and precise external remote controls for rackover, setting the lens stop and focusing, I was able to do everything underwater with this camera that I am able to do with a Mitchell on the sound stage. The combined camera and blimp, which weighs 175 pounds on land, has neutral buoyancy underwater, making it easy to transport undersea at any depth. For dolly shots and "swim-throughs" we used the Aquaflex (the underwater-blimped Camerette) another highly maneuverable submarine camera.

The Carribean location site chosen for this production is perhaps the most ideal for underwater cinematography. Nowhere else is there the wide variety of picturesque coral formations, the countless different kinds of fish, ranging from the colorful grouper to barracuda, sharks and sting rays. The crystal-clear water afforded visibility to depths as great as 50 feet. Because there is no direct current running through the waters here, there was not the problem of mud or silt clouding the water to hamper photography. There was, however, a layer of coral dust or fine sand on the ocean floor which was easily stirred up whenever the divers walked on it. When this happened, operations stopped for about twenty minutes to allow the dust to settle. Later, we eliminated this problem by first laying a heavy hemp mat on the ocean floor, over the area where action was to take place.

The appearance of fish swimming through the water is an accepted component of underwater photography, but we found that this piscatorial prop was not always around when we were ready to start shooting. So here again, ingenuity came to the fore, and fish were gathered up by the prop men and held in wire mesh pens until time came to release them for a "walk through" in the scene.

In gathering the fish, it was learned that if the open end of the net was pointed toward a coral head, the fish would swim into it, rather than away toward the open sea. We thus had excellent luck in always keeping the fish within camera range. Indeed, some of them seemed to like "acting in pictures." Many stuck around after a scene was shot and were re-captured and used again.

Director Richard Fleischer spent as much time underwater as any other man in the troupe, and set an example for the rest of us to follow. Considerable credit is also due Fred Zendar, the production's chief diving expert. So efficiently did Zendar set up the diving operations and his water safety program that there was not a single accident nor any major interruption in shooting during our eight-week stay on location.

Although I had previous experience as an underwater cameraman on 20th Century-Fox's "The Frogmen" and "Beneath The Twelve-Mile Reef,' I put in more sub-surface time on this Walt Disney production than on the other two combined. This was certainly a most interesting and challenging job, but I'll be happy to settle for one on a "dull," dry sound stage any time.

Olle Comatedt, ASC, has completed photography of a documentary film on St. John's College in Annapolis, Md., for American Chemical Agricultural Co., and leaves this month for Europe where he will produce a series of documentary films on a number of European countries. His headquarters will be Gothenburg, Sweden.

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(Continued on Next Page)

Classified Ads

(Continued from Preceding Page)

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Readers who would like to write articles or papers on subjects relating to cinematography or of interest to motion picture cameramen, or on subjects relating to TV Film Production, Industrial Film Making, Film Laboratory Technique, Special Effects, Amateur Movie Making, etc., are invited to submit such articles to the Editor for consideration

For all published material we will pay our regular space rates following publication

AMERICAN CINEMATOGRAPHER
1782 No Orange Dr., Hollywood 28 Calif

CURRENT ASSIGNMENTS

(Continued from Page 306)

● CARL GUTHRIE, "Long John Silver," (Joseph Kaufman Prod.—Technicolor, wide screen—shooting in Australia) with Robert Newton and Connie Gilchrist. Byron Haskin, director.

● FLOYD CROSBY, "Crashaut," with John Ireland and Dorothy Malone. Ed Sampson and John Ireland, directors.

● CHARLES G. CLASKE, "Suddenly," (Robt. Bassler Prods., United Artists release) with Frank Sinatra, Sterling Hayden, Nancy Gates. Lewis Allen, director.

TELEVISION

(The following directors of photography were active last month in photographing films for television in Hollywood, or were on contract to direct the photography of television films for the producers named.)

● LUCIEN ANDRIOT, "Where Were You?" series of half-hour shows starring Ken Murray for Bing Crosby Enterprises at Ken Murray Prods.

● NORBERT BRODINE, "Letter To Loretta" series of half-hour dramas—D.P.I., starring Loretta Young (Procter & Gamble), RKO Pathe studio and "In Between" series of half-hour dramas for Lewislor Enterprises.

● GEORGE DISKANT, "Four Star Playhouse" series of half-hour dramas, featuring various stars, for Four Star Productions, RKO-Pathe Studio (Singer Sewing Machines.)

● KARL FREUND, "I Love Lucy" series of half-hour comedies starring Lucille Ball and Desi Arnaz, for Desilu Productions; (Philip Morris).

● ALFRED L. GILKS, "Halls of Ivy," series of half hour dramas starring Ronald Colman and Benita Hume for Hall Prods., Inc., at Motion Picture Center.

● BENJAMIN KLINE, "Fireside Theatre" series of half-hour dramas for Frank Wisbar Prods., Inc., at American National Studios (Procter & Gamble).

● JACK MACKENZIE, "Public Defender" series of half hour films for CBS, starring Reed Hadley for Hal Roach Jr. Prods. (Philip Morris)

● WILLIAM MELLOR, "Adventures of Ozzie and Harriet" series of half hour comedy dramas starring Ozzie Nelson and Harriet Hilliard for Stage Five Prods., Inc., General Service Studios. (ABC).

● VIRGIL MILLER, "You Bet Your Life," weekly half-hour audience participation shows, featuring Groucho Marx, for Filmcraft Prods., NBC Studios. (DeSoto Plymouth).

● HAL MOHR, "The Joan Davis Show" series of half-hour comedy-dramas starring Joan Davis for Joan Davis Enterprises, General Service Studios.(NBC).

● NICK MUSURACA, "The Lone Wolf," starring Louis Hayward, series of half-hour dramas (UTP) for Gross-Krasne, Inc., at California Studios.

● KENNETH PEACH, "Adventures Of The Falcon" series of half-hour dramas starring Charles McGraw at Federal Telefilm, Inc (NBC)

● ROBERT PITTACK, "Private Secretary" series of half-hour comedy dramas starring Ann Sothern and Don Porter, (Lucky Strike) and "The Lone Ranger" series of half-hour dramas starring Clayton Moore and Jay Silverheels for CM-TV Prods. Inc., (General Mills)

● JOHN L. RUSSELL, Jr., "Joe Palooka," series of half hour comedy dramas starring Joe Kirkwood and Cathy Downs for Guild films at Republic.

● MACK STENGLER, "Life With Elizabeth" series of half hour dramas "The Liberace Show," half-hour musical film series and the "Florian Zabach Show," series of half hour musical films.

● HAROLD STINE, "Cavalcade of America" series of half hour dramas and "This Is Your Music" for Jack Denove Prods., Inc, Samuel Goldwyn Studios (DuPont).

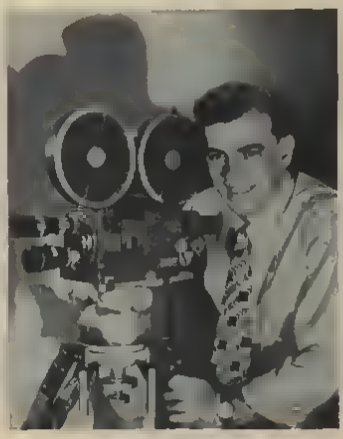
● WALTER STRENGE, "Waterfront" series of half hour dramas starring Preston Foster and Lois Moran (UTP) at Hal Roach Studios

● PHIL TANNURA, "The Burns and Allen Show" series of half hour comedies starring George Burns and Gracie Allen, for McCadden Corp., General Service Studios. (Carnation Milk and Goodrich).

● LESTER WHITE, 'Adventures of Rin Tin Tin," series of half hour dramas starring Lee Aaker, James Brown and Rin Tin Tin for Screen Gems.

INDUSTRY NEWS

(Continued from Page 272)



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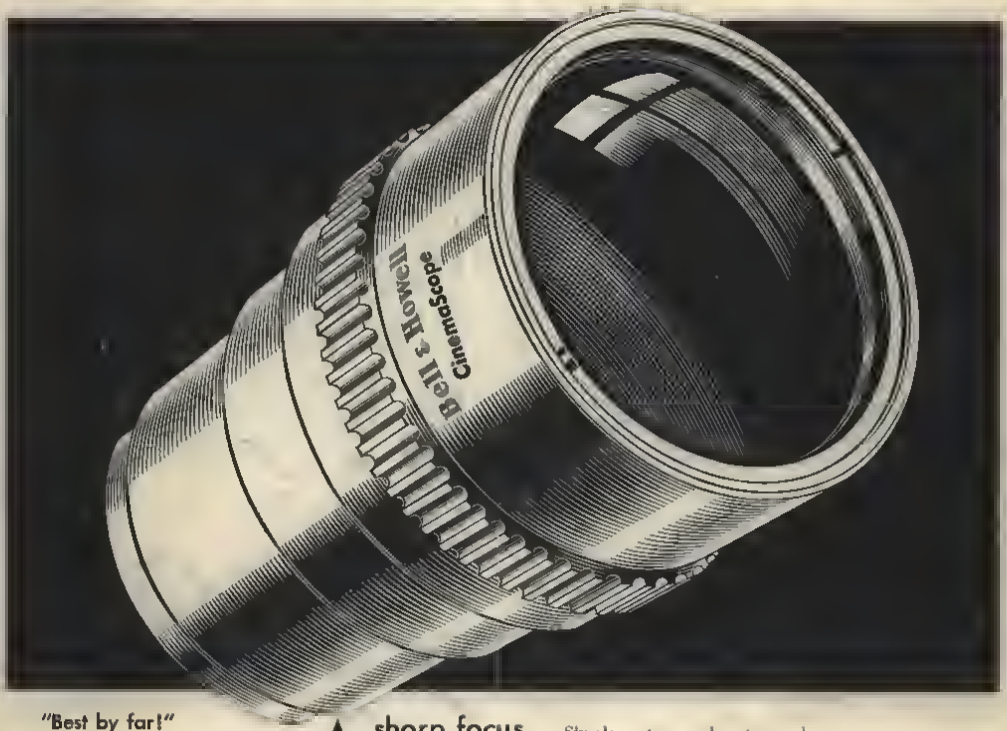

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